DOCTOR OF BUSINESS (DBA)

The living story of Living Technology.

The sensemaking of the thematic profiling strategy of a University of Applied Sciences in the Netherlands

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The sensemaking of the thematic profiling strategy of a University of Applied Sciences in the Netherlands

Rients Bote Jozef Jorna

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Maurits Escher ‘Dag en nacht’ (Day and night) (1938)

Abstract

This thesis analyses how Saxion UAS's strategy for implementing the thematic focus of 'Living Technology' is unfolding in the organization as a whole, by examining how the strategy is understood by its participants. According to the notion of 'strategy as practice', people's narratives reveal their understanding of and influence on an organization's strategy and its implementation. In fact, people are strategizing actors, contributing to the strategy by means of their storytelling – in this case about Living Technology. There is a continuum between the meso narratives (the intended corporate storytelling) and the micro narratives (the organizational storytelling) within the dynamics of a storytelling organization. Inspired by a narrative approach to strategy as practice, the thesis aims to analyse how the participants make sense of the organization's strategy.

The case study reveals that the strategy that was chosen for the implementation of 'Living Technology' is very much influenced by macro neoliberal governmental policies. By choosing Living Technology as their focus, the organization adopts a stance which is responsive to this contextual environment. Being a part of the national life science-oriented top sector involves an ongoing, multi-discursive process in which both the intended corporate storytelling and the incremental, multi-interpretable organizational storytelling by the participants shape direction and performance. Analysing an organization's storytelling is enriching, as it gives deeper insight into the strategizing process. Whereas the formal reports that appear within a planning & control cycle suggest that the corporate strategy is unequivocally understood and complied with, the organizational storytelling reveals in an enriching way how people make sense of strategy. In other words, the narratives of participants show how strategy works out in practice.

Keywords: strategy as practice, storytelling, sensemaking

Contents

1. Introduction

This thesis was inspired by a sense of wonder which I experienced in many forms: as astonishment, disbelief, amazement, surprise, as well as simply curiosity. In whichever form it manifested itself, I was intrigued and fascinated. In recent years, and also inspired by the DBA programme which I had embarked on, seemingly obvious questions arose about daily practice within my organization Saxion UAS, such as: Why do we do the things the way we do? Why are we getting the results that we are? Who are the involved participants?

The theme of this thesis is how the employees in my organization experience its strategy and how they make sense of it in their daily practice. Creating and giving direction in higher education is a process that I have contributed to for many decades, consciously and unconsciously, initially as a teacher of Communication (my disciplinary background is pedagogics and modern literature), after which I held the position of Dean in the Hospitality Business School of Saxion UAS, and then the same position in Saxion's School of Health. The roles that one assumes over the years vary, depending on your formal position and the associated duties, but also on the way in which you interpret those duties. Gradually, having access to many resources, you become an insider, and by influencing the policy and practices of the organization you become a participant. Another role is that of employer, because of the employees that you are responsible for.

Over the last few decades, I have witnessed many changes in Higher Education. These proved to be fundamental shifts. Up to the 1980s, the independence of small-scale institutes of education was a given, but since then a process of merging and distribution of tasks has led to 'broad' Universities of Applied Sciences with tens of thousands of students. In the past, most students chose to live in the town or city where they studied, but now most students commute: they reside in their hometown and commute to the UAS, using the free public transport card that is available to them. While the small-scale institutes were mostly characterized by fragmented, implicit processes and considerable independence for teachers as professionals – at least that is how I experienced it – now the governance of UASs is accompanied by explicit, integrated mechanisms with planned strategies and extensive paperwork (accountability). Curriculum design and research have become processes that are extensively

and intensively monitored in terms of input, throughput, and output. Furthermore, the UASs have become highly sensitive to the needs of their stakeholders: the students (whose consumer satisfaction is monitored), the professional practice (whose demands and needs must be met), and society as a whole (which UASs are accountable to via intensive quality control mechanisms).

Having acted within these dynamics in several managerial positions for so many years, my marvel at the organization's practices has only grown: the dynamics within an educational organization, with its large scale and complexity, how developments are steered by means of manifold mechanisms, and how a certain performance is achieved. The dynamics are particularly visible in formal texts, in the words uttered by those involved during their daily interactions, and of course in their actual behaviour. It is a continuous process of sensemaking: how people act, and why they act like they do.

In this thesis, I assume the role of a researcher investigating the practice of my organization. This role requires maintaining a certain distance, inquisitiveness, reflexivity. As an insider researcher, I have the benefit of my knowledge of the organizational memory of the organization, access to informal and formal sources, and experience with and insight into its practices. Work-based research, however, requires a distant attitude, and the researcher must be highly conscious of implicit tacit knowledge or prejudices.

Management studies study organizational practices. They conceptualize, and may even clarify or show good and bad practices. In this thesis, I hope to contribute to the approach to organizations as sensemaking entities. The urgency of this study lies in evaluating the narratives of the participants, as these may enrich the sensemaking of a corporate strategy.

I have been able to satisfy my curiosity thanks to many people who have assisted me by providing support, ideas, and inspiration. I would like to thank the organization for giving me the opportunity to do the research, the interviewees for sharing their storytelling with me, the supervisors Prof. Jürgen Enders and Prof. Yiannis Gabriel for keeping me on track, and my wife for being a critical friend and an inspiring sparring partner.

Research question

On the occasion of the feast of St. Nicholas, on December 5, 2012, all of the approximately 2000 employees of the Dutch Saxion University of Applied Sciences (UAS) found a card on their desk from St. Nicholas. It was an invitation to open his 'Big Book' by using a QR-code which activated a talk by the saintly man. In his talk, he praised their excellent performance and added that it was a good breeding ground for the new Saxion 2012-2016 Strategy and its Vision for 2020, which aims to create a distinct focus for the whole organization, namely that of 'innovative technologies'. In order to introduce this new strategy, a chocolate tablet was presented, shaped as an iPad with the Saxion homepage heading: 'Innovative Technologies taste surprisingly good'. This symbolic and ritual initiative marked Saxion's position and ambition at the beginning of its new planning period. Within a few months, other rituals and symbols relating to this strategy followed. The following New Year's event – also celebrating the opening of a new building – invited people to experience new technologies through their senses (e.g. new technologies in food, a silent disco, hairdos using applications from nanotechnology, textiles that change colour with climate conditions, robots as butlers).

Besides these symbolic activities, the corporate strategy of focusing on innovative technologies was laid down in numerous corporate texts, beginning with the Saxion strategy 12-16. This strategy proclaims a focus on several areas: connecting research and education by researchers and professional partners (lecturers, students), demand-driven research (from problem-based to research in support of expertise and disciplines), a research agenda related to Living Technology, intensified collaboration between schools and knowledge centres, a strengthened collaboration with regional industries and institutions, a connection with the EU-agenda Horizon 2020, and collaboration with other universities and regions with a similar focus. As a University of Applied Sciences, Saxion wishes to position itself as focusing on usefulness and relevance for society and industry in its programmes and research.

Soon after the ignition of this strategy, the overarching thematic focus of 'Living Technology' was introduced. This focus on Living Technology should affect many functions in the performance of the organization. Goal-directed measures mentioned in the strategy include: an increase of research staff in Living Technology areas (e.g. ethics and technology,

nanotechnology, robotics, mechatronics), an allocation of the funding for faculty PhD-programmes directed towards technology, an additional investment in new centres of expertise in technology areas, a linkage of these centres to the contexts of applied education and research programmes, additional funding for departments to develop or redesign courses or modules to place more emphasis on innovative technologies, HR policies with technology-related qualifications in personal development, and the recruitment of new personnel.

This institutional strategy as a phenomenon presents many interesting angles for research.

My research concentrates on how Saxion's staff 'make sense' of the strategic profiling on Living Technology. This can be researched by looking at the narratives they themselves create and disseminate. By creating and telling stories, people's individual narratives intertwine with an organization's strategy narrative. My research therefore aims to analyse how and to what extent the narratives of Saxion's staff are intertwined with the organization's strategy narratives on the strategic topic of the orientation towards Living Technology. My argument concentrates on the interaction between the strategy as laid down in the formal documents, and the micro-strategizing practices manifest in the way participants experience the strategy in their talks. The story of an organization is conceived of as a multi-discursive product, in which strategies and strategizing are constituted by communicative processes, and where internal discourse shapes strategic realities and strategists' subjectivities (Brown and Thomson, 2013:2). The members of the organization are considered strategizing actors, contributing to the strategy and story of Living Technology. In this sense, organizational reality is not only reflected by facts and figures as an output or outcome of an organization, but also by how participants of the organization shape strategy in their actual practices. Taking this stance, 'organization' not only refers to a body subject to formal processes and procedures, but gains the added meaning of a living, interactive process of people continuously making sense.

The main research question is: 'How do participants of Saxion make sense of the strategy of focusing on 'Living Technology'?' This questions the relationship between an intended corporate strategy and the actual sensemaking by individual participants of the organization in their daily practices. The stance taken will be that of a narrative point of view, in order to analyze the narratives about Living Technology in the stories told by the participants.

To answer the main research question, this study has been structured from an analysis of the macro level (external contextual environment) of the organization, the meso level (internal

contextual environment) of the organization, and micro level (the chosen segments of participants) of the organization. This results in the following sub questions, which are subsequently discussed in chapters 3, 5, 6, 7.

> Sub question 1: How can the strategy of an organization be analysed by using the narrative approach of storytelling as a conceptual framework?
>
> Sub question 2: Which features of the macro external contextual environment are influencing the corporate strategy of the chosen thematic profiling on living technology? This concerns the question where the urge for thematic profiling originates from, and which policies instigated this strategy.
>
> Sub question 3: Which features of the meso internal contextual environment are influencing the sensemaking on living technology? This concerns the question how the organization by its policy making moulds the thematic profiling.
>
> Sub question 4: How do participants of the micro internal context of the chosen segments make sense of the profiling on living technology? With the contextual features as reference framework, this question focuses on how people in the organization in fact make sense of the chosen strategy.

The case study aims to contribute to studies on organizational strategy and the roles that the organization's participants play in this, and with that, enrich the 'strategy-as-practice'

approach with narrativity as method. The strategy-as-practice approach takes as its point of departure that people in organizations shape the (outcomes of) strategy by what they actually do in terms of behaviour. Narratives are an important sense-giving device. The storytelling approach conceptualizes organizational life as storymaking, and organization theory as story reading. I will read the stories of the people working at Saxion in order to understand how they make sense of Living Technology, or more specifically, how they interpret what Living Technology is to them. I do not focus on the rationale of those interpretations.

The research is structured as follows. Chapter 3 provides a conceptual framework for analysis through which the process of sensemaking can be described, using the narrative approach of storytelling within the perspective of strategy as practice of a storytelling organization. Chapter 4 provides the outlines of the research design. The research method is a qualitative case study from a social-constructionist perspective with a narrative interpretative approach. Data is collected from sources of corporate policy texts, in order to gain insight into the context of the case study. The case study itself is about the micro storytelling of selected participants from two schools and the executive board. Their stories about Living Technology are collected through interviews. Chapter 5 describes the macro-contextual environment of the chosen strategy. This will give insight into the contextual features that may influence the decision-making of the organization as such. Features that are discussed are e.g.: 'What triggered the strategy?', 'What policies instigate this strategy?', and 'Why has the organization opted for this strategy?' Chapter 6 describes the context of the organization at the meso level. After all, besides external macro-contextual features, there are features of the organization itself that may influence the understandings of and sensemaking by the participants. The corporate policy texts, and specifically those from the three segments in the research design (corporate policy texts at the corporate level and texts at the level of the two schools), are analysed to reveal this internal context. This information serves as input for the interview design. Chapter 7 is the heart of the case study. It extensively describes the process of story collecting from the selected participants, and discusses the results of the interviews at length. The main research questions will be revisited in Chapter 8, with the presentation of the final conclusions in a broader context.

2. Conceptual framework: the storytelling organization

Chapter 3 explores which strategy approaches could serve as the conceptual framework for empirical research into sensemaking in an organization. The research should give insight into how participants of Saxion make sense of the strategy of Living Technology by the narratives they tell. An interpretative approach to narrativity will be applied in this case study.

Storytelling is the institutional memory system of an organization, it holds a process of organizing, and it stimulates direction. It is the never-ending construction of meaning in an organization by its participants. An organizational story can be regarded as a 'clotted' process of strategizing in time. Within these dynamics, there is a certain amount of tension between the corporate storytelling (the formal top-down narrative) and organizational storytelling through micro narratives. Based on the conceptual framework, a research design will be developed to be used as the basis for an analysis of the sensemaking around the strategy of Living Technology.

Weick (1979) pointed to the importance in organizational studies of describing and analysing organizations as entities with actors in action. He argued that strategy is a process of acting. This is an emergent perspective on sensemaking by participants in an organization, which is elaborated in the 'strategy-as-practice approach'. Section 3.1 underlines the importance of narrativity from this perspective. Literature provides a wide variety of interpretations and definitions of 'stories' and 'narratives': the dimensions of a story may vary from a story as 'a whole narrative' (plot, coherent), to 'a living story' (fragmented, non-linear, unplotted), and to post-modern notions of a story as 'performance' (entailing all signs, behaviours, devices). An organization can be seen as a storytelling network in which participants create and contribute to strategies with their stories as sensemaking devices. This is further outlined in Section 3.2. Finally, in Section 3.3, the opposed dimensions of corporate storytelling (or 'storyselling') and organizational storytelling will be introduced. The strategy-as-practice approach and the narrative approach prove to be rich concepts for understanding strategizing practices.

2.1 Strategy and sensemaking

Strategy is about a message and its effectiveness in achieving goals: it is about organizing direction. In this sense, strategy involves figuring out the steps that will lead an organization to a specific objective (Mintzberg, 1989; Mintzberg, Ahlstrand, Lampel, 1998). In traditional mainstream approaches (e.g. the Planning School, represented by Ansoff (1965, 1988), and the Positioning School, represented by Porter (1980, 1985)), change is perceived as a mainly rational, logical, top-down, and goal-directed process. It revolves around planning, assuming that the rationality of change processes can be constructed and predicted. And in case the outcomes are not realized, an organization's management might even believe that the systems (people, technical systems) are to blame, a lot of effort is put into improving methods in order to get the machine to function better (Birnbaum, 2000). Or as Mintzberg (Mintzberg 1994:4) typifies this view when relating it to positive planning and performance relationships: 'Planning could do no wrong'. This top-down approach sees strategy as planning-as-panacea. Mintzberg and other organizational theorists have called for reconceptualizing strategic management. Whereas traditional conceptualizations of strategy tend toward notions of fit (how we fit into this or that environment), prediction (what lies ahead), and competition (how might we survive), a narrative view of strategy stresses how language is used to construct meaning – how organizational stakeholders create a discourse of direction. Strategy is therefore fiction, to a certain extent: it is always something that is constructed to persuade others towards certain understandings and actions (Barry and Elmes, 1997:433). It is an emergent perspective (Weick, 1995:30-38), where the narrative is a form of 'meaning-making', as 'the narrative scheme serves as a lens through which the apparently independent and disconnected elements of existence are seen as related parts of a whole' (Polkinghorne, 1988:36). Narrativity encompasses both the telling and the told, and can be applied to the strategizing and to strategies (Barry and Elmes, 1997:432). The narrative approach to strategy, then, not only focuses on the story of the leaders and its persuasiveness, but also on the ways in which strategies are disseminated. Interesting in this perspective is the use of the notion of 'polyphony' given by Bakhtin (1984), who claims that storytelling should not be interpreted as many voices, but as 'polyphonic discourse' with outcomes from dialogical rather than monological authorship. Creating polyphonic strategic narratives requires that strategic authors assume a more processual role, one which emphasizes listening for diverse points of view. In this role, the strategist's job shifts from being a decision-formulator, an implementer

of structure and a controller of events, to providing a vision to account for the streams of events and actions that occur (Smircick and Stubbart, 1985:730). This concept of a polyphonic strategy, as promoted in the 1990s, is also very much related to Bauman's assumption that organizations are becoming more fluid, blurring organizational borders and boundaries, with disrupted chains of authority and rapidly increasing means for communicating (Bauman, 2000).

With the move in organizational studies towards the process of acting in organizations, there is more attention for the people who are involved, for uncertainties, unpredictability, or possible irrationality of leadership. Many researchers point out that the reality of strategy and change usually does not follow a clearly rational, linear path. There are many lenses through which the strategy of an organization can be scrutinized, with features such as life cycle, basis of conflict, irrationality, ambiguity, and a loose coupling of intentions and behaviour (Cohen, 1972; De Bruijn, 2008; De Caluwe, 2003; Kets de Vries, 2001; H. Mintzberg, 1989; Weggeman, 2008). All these notions and theories reveal that a merely rational and linear way of planning obscures the truth of the underlying mechanism, ambiguities, and irrationalities in the behaviour of people who participate in processes of change and sensemaking. Strategy, then, is not the outcome of one-off decisions, but rather the result of complex processes replete with the messiness of interpersonal relations and political processes (Johnson et al., 2007:7).

Gabriel (1995) argues that the concept of control still lies at the core of numerous discourses on organizations (since Taylor's, Fayol's, and Weber's work on bureaucracy). Control, according to this view, is achieved through several means (e.g. language, rituals, symbols, and myths) mostly employed by a management attempting to whip up commitment and enthusiasm. This approach has tended to create an overmanaged and over-policed image of organizations, an image in which the individual is over-controlled and over-socialized. The option for the individual is then to submit or to rebel. Gabriel proposes that subjectivity could be examined in unmanaged spaces at the workplace, outside of participation in, or rejection of, control practices: 'I will propose that within every organization there is uncolonized terrain, a terrain which is not and cannot be managed, in which people, both individually and in groups, can engage in all kinds of unsupervised, spontaneous activity. This terrain is called the 'unmanaged organization', a kind of organizational dream world in which desires, anxieties and emotions find expressions in highly irrational constructions' (1995:478). It is a third way besides the control–resistance dialectic of conformity or opposition, allowing a

temporary supremacy of emotion over rationality and uncontrol over control. Research in this unmanaged place is less concerned with 'facts-as-information' but with 'facts-as-experience'. This approach is not looking for facts (true or not), but treats stories as clues or signs leading to the 'truth' about the organization (1995:481).

The focus on people and how they create their realities characterizes the 'strategy-as-practice' approach as a broad conceptual framework (Jarzabkowski, 2005; Czarniaskwa, 2004; Balogun and Hope Hailey, 2008; Seidl, 2007; Johnson et al., 2007; Paroutis et al., 2013). Its point of departure is that, next to the fact that an organization 'has' a strategy, its people are actually shaping the strategy. Strategy does not confine itself to what an organization performs (static), but also incorporates what people in the organization actually do (dynamic). It takes the notion of both Mintzberg's concept of 'emerging strategy' and the 'intended strategy'. In this strategy-as-practice approach, the focus is shifting from the economic institutional performance of the organization (mostly symbolized by its general manager as heroic change agent) towards the micro-organizational perspective (the people). The lens is focusing on the processes of the practices of people within the practice of the organization. This means that strategizing is an active and ongoing process of doing and acting. Strategy is a balancing act between top-down (strengthening and steering) and bottom-up approaches, with room for organic, incremental learning. Consequently, strategy is a journey of becoming without an end: it is a road under construction and therefore a practice that gets built and rebuilt all the time. Within the scope of strategy as practice, a strategy is a cultural product, which manifests itself in acting and language, in text and talk. The important role of language (narratives, storytelling, discourse-analysis) and even socio-material practice (e.g. how people sit, what obstacles they use) has to be interpreted, as does the influence of the physical environment (e.g. workplace management, facilities).

In the strategy-as-practice approach, research focuses on the actions and interactions of the strategy practitioners in doing strategy. It is a refocus from the micro-economics tradition which is concerned with the macro level of organization, towards the human beings in the organization. It is a 'practice turn' or 'linguistic turn', emphasizing the myriad micro actions through which human actions shape activity in ways that are consequential for strategic outcomes. This activity-based view is a way of looking at strategy as a pattern in a stream of goal-directed activity over time. Jarzabkowski (2005) found that there can be five patterns influencing the process of strategizing: emerging activity, inertial activity, changing directions, unresolved strategizing, and realizing goal-directed activity. Case studies have

shown that multiple streams of activity coexist and are shaped together, but some have also revealed tension between streams of activity. For instance, when an organization chooses for a new core-intended strategy such as a change in identity, tension may occur between the changing of direction and the unresolved strategizing of still-existing practices. This could even trigger a pattern of inertial activities (persistence of previous goals and sub-optimal performance).

Following the approach of strategy as practice, Balogun and Hope Hailey (2008) take the perspective of balancing the continuum of intentionally planned change with being sensitive to the context of the particular organizational culture. They emphasize that change requires both the intentional development of clear plans, insight into the barriers to change, and insight into its complexity within the particular organizational culture. Change is about people, which asks for more than a plan. Their Change Kaleidoscope model is a detailed descriptive diagnostic framework that enables the change agent to analyse organizational change within a particular context. It judges which features are most critical in the change situation (eight features in the second inner ring), and considers the design choices (six paths in the centre). After this diagnosis, the change agent designs the transition phases (mobilise, move, and sustain). The model is a true 'kaleidoscope': as the eight contextual features rotate, the change designs will also vary.

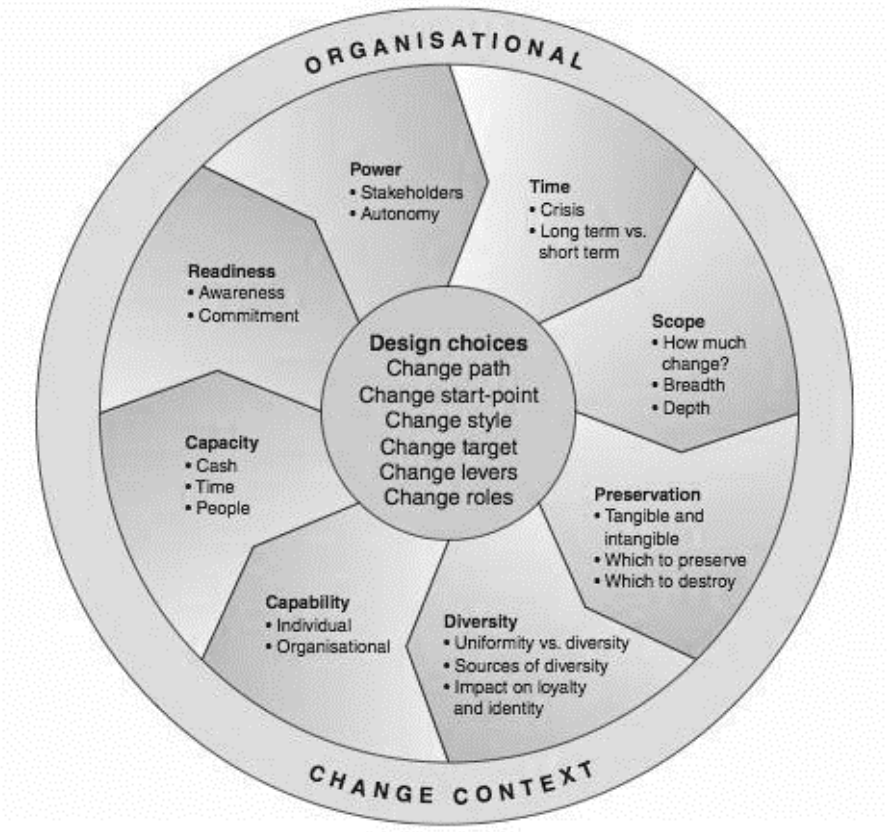

Figure 1. The Change Kaleidoscope (Balogun and Hope Hailey, 2008:19)

The starting point of the Kaleidoscope is the inner ring that specifies *design choices* to be made by the change agent, for instance the *change path*, which is defined in terms of *the end result of change* (transformation or realignment) and the *nature of change* (the way change is implemented: incremental or big bang). These two dimensions are described in four different types of change: *adaption* and *reconstruction* (gradations of change towards *realignment*) vs. *evolution* and *revolution* (gradations of change in order to achieve *transformation*). This helps to indicate the intended path of change (e.g. the move from reconstruction to evolution). The change path, in the given context, is the first and most important choice.

Other design choices are *change start point* (the locus of control and influence: top-down or bottom-up), *change style* (the process of managing: a continuum from coercion and direction to delegation, collaboration, and participation), *change targets* (the levels at which to intervene: values, behaviours, objectives, and outputs of employees), *change levers* (not only the range of levers and interventions with technical structures and systems, but also cultural interventions like symbols and routines, and interpersonal interventions with communication, education, and training), *change roles* (besides leadership of change by a 'champion' with

enthusiasm and vision, this includes a design of the nature of the additional and supporting change agents and their roles).

As change is context sensitive, the Kaleidoscope maps eight critical contextual features that have to be considered, as they influence the design choices. The features are *time* (need and duration of change), *scope* (degree of change), *preservation* (what organizational assets, characteristics, and practices need to be maintained and protected during change), *diversity* (of staff/professional groups and divisions), *capability* (level of organizational, managerial, and personal capability to implement change), *readiness* (how ready for change are the employees), and *power* (where is power vested within the organization).

The change agents, e.g. leaders of the organization, have to read the context by sensing the situation. They have to appreciate and acknowledge what is *unique* and *specific* about the current context in which they are working.

To summarize, the strategy-as-process approach is challenging the traditional linear approach. Change is truly about process of change and how it is strategized by the people involved. The process of strategizing is 'the ongoing interplay between top managers and the strategizing practices in shaping strategy over time' (Jarzabkowski, 2005:43). This approach of strategy in practice underlines the dynamics of strategy as process with room for loosely coupled, organic incremental learning.

2.2 Towards a narrative lens: the storytelling organization

While stories entertain, and good storytellers command power and esteem, organizational theory has been late in taking an interest in the stories that people tell in and about the organization. Research interest in the concept of the 'storytelling organization' has been growing since the 1990s. Considerable scholarship in the field of organizations and management has recognized the importance of the narrative lens in the study of organizations as narratives, and the study of narratives and stories in organizations as ways of making sense of the world of administration.

Czarniawska (1997) underlines that in understanding an organization, researchers have to discover its repertoire of legitimate stories and how they shape an organization's narrative history.

A narrative can refer to oneself (to make sense of what we are doing), or to others (by telling, writing, or enacting it), and it includes a reception aspect (interpreting and understanding a story that is heard or read). The narrative enters organization studies that collect organizational stories ('tales of the field'). Taking the concept of the storytelling organization, the life of an organization is viewed as storymaking, while organization theory is considered story reading (interpretative approaches). In this view people (members) act in their organization with language and thoughts, and with varying, changing roles. Topics and characters are 'dramatized', politicians and policymakers 'set the stage' for others, leaders navigating the 'scene-act ratio' are using dramaturgical techniques. Although a play ends and the audience goes home, in an organization the story continues.

Human beings as a species are described as 'homo narrans' or 'homo fabulans', tellers and interpreters of narrative. People are storytelling animals with a natural impulse to narrate. Especially in times of strategic change, stories are a means of preserving plausibility and coherence, as they reconcile thought and feeling (Weick, 1995). In this way, strategy can be viewed as a narrative process for both those doing the telling and those being told. While a traditional organization's story research mainly concentrates on the formal, 'authorized' (by leaders and spokesmen) texts as isolated empirical explanations of the organization, the 'storytelling organization' approach posits story text and performance behaviour in context as two sides of the same coin, thus giving insight into the complex and varied ways in which organization members use storytelling in their world (Boje, 1991:125). The organization is a storytelling system, and organizational storytelling is the institutional memory system of the organization. Story is the interface of individual and collective memory (Boje, 1991:107). Boje advocates focusing on *in situ* everyday performance behaviour, an integration of study-as-texts and stories-as-performance. Stories are about the past, present, and future, and seek to make sense of and manage struggles with a given environment; storytelling is the sensemaking currency of human relationships (Boje, 1991:16).

Gabriel (Fineman and Gabriel, 1998; Gabriel, 2000; Gabriel and Griffiths, 2004) also supports the notion that stories tell us about the organization culture. They show how events are experienced and what meaning they hold for the members. The truth of a story therefore lies not in the facts, but in meaning; stories are 'sensemaking devices'. The relationship between facts and story is plastic – stories interpret events, infusing them with meaning through distortions, omissions, embellishments, and other devices, without, however, obliterating the facts (Gabriel, 2000:6). Organizational stories can be viewed as poetic elaborations on actual

events, as wish-fulfilling fantasies built on everyday experience, and as expressions of deeper organizational and personal realities (Gabriel, 2000:151). Stories are part of organizational folklore, the analysis of which yields substantial understanding of the nature of an organization, its power relations, and its culture (Gabriel, 2000:25). By collecting stories, by listening and comparing different accounts, access is gained to deeper organizational realities, closely linked to their members' experience. Stories enable researchers to study organizational politics, culture, and change (Gabriel and Griffiths, 2004).

But what actually is a story or narrative? It is a complex notion with many interpretations and definitions. The terms 'narrative' and 'story' are often used interchangeably. Three dimensions of a story can be distinguished: the story as a narrative, the story as 'living storytelling', and the story as performance. The first dimension, the traditional approach, advocated by Gabriel and Weick among others, considers a story to be a narrative with a simple but resonant plots and characters, involving narrative skill, entertaining risk, and aiming to entertain, persuade, and win over (Gabriel 2000:22). With this narrow description, Gabriel discerns proper stories from other sense-seeking and sense-saving devices (like theories, rules of thumb, slogans, sound bites, logos and images, reports, opinions, etc). Referring to Aristotle, there is the distinction between the poetic interpretation (emotional–symbolic text) and the historical–analytical interpretation (discourse of facts, causes, effects). Facts are used as poetic material, moulding them, twisting them, and embellishing them for effect. The storyteller uses sensemaking mechanisms (e.g. rhetorical tropes, metaphor, metonymy, synecdoche, irony, etc.). Stories are 'facts-as-experience' for both tellers (as raconteurs, entertainers, and yarn spinners) and listeners committed to effect. This is in opposition to descriptive reports, facts-as-information, and the teller and chronicler committed to accuracy.

Gabriel defines stories as 'narratives with plots and characters, generating emotion in narrator and audience, through a poetic elaboration of symbolic material. This material may be a product of fantasy or experience, including an experience of earlier narratives. Story plots entail conflicts, predicaments, trials, coincidences, and crises that call for choices, decisions, actions, and interactions, whose actual outcomes are often at odds with the characters 'intentions and purposes'' (Gabriel, 2000:239). Features of a prototypical story are a protagonist, a predicament, attempts to resolve the predicament, the outcome of these attempts, and the reaction of the protagonist.

This focus on sensemaking by individuals in the context of the organization is also expressed by Weick when he summarizes the most important aspects of sensemaking in organizations: 'If accuracy is nice but not necessary in sensemaking, then what is necessary? The answer is, something that preserves plausibility and coherence, something that is reasonable and memorable, something that embodies past experience and expectations, something that resonates with other people, something that can be constructed retrospectively but also can be used prospectively, something that captures both feeling and thought, something that allows for embellishment to fit current oddities, something that is fun to contrast. In short, what is necessary in sensemaking is a good story' (Weick, 1995:60-61). In this approach, the characteristics of a story are chronological order and the thematic ordering of events (Czarniawska, 1998). This resembles Ricoeur (1983:150): 'Stories provide rich data that express movement, interpret ideas, and describe from the storyteller's perspective how things used to be and how they are, as well as how they should be'.

The second dimension is the story as 'living storytelling'. As opposed to the traditional view and the folklorist approach of a strict demarcation between the teller and the audience, Boje underlines the dynamics of a living storytelling system (Boje, 2001). This system is reflexive (continuously recreating the past according the present), it is interactive (stories are multi-authored, alternating roles of teller and listener), it is dialogical (truth lies in the process through which the text emerges), and it is fragmented (stories can be terse). In this view, there are not only whole or complete stories but a far greater antenarratives. These are fragmented, non-linear, incoherent, collective, unplotted, and pre-narrative speculations. In the end, one could conclude that living storytelling as a process may end, through a 'web of stories', as a complete narrative. In this view, stories can be seen as antenarratives, and narratives as post-stories (retrospective explanations of the storytelling). The concept of 'story' thus generates a wide variety of definitions (from 'terse tellings' to 'whole story'), and the use of the terms 'story' and 'narrative' is not always clear and sometimes interchangeable.

The third dimension is the post-modern dimension where stories are in principle antenarratives (thus fragmented, incoherent). There is no sum total story to tell, stories do not exist, only fragments. Storytellers are only telling bits and pieces (Boje, 2001). In this post-modernist treatment, stories are everywhere: virtually any piece of text, any sign, advertisements, material objects, human bodies, reports, any object at all tells a story or is a story. Gabriel typifies this perspective as 'narrative deskilling', comparing what mass entertainment is to storytelling, what Fordism is to artisan craft (Gabriel, 2000:15).

2.3 Corporate storytelling and organizational storytelling

Besides the several interpretations and definitions of 'stories' and 'narratives', the differing perspectives of corporate storytelling and organizational storytelling should be noticed. Corporate stories about the identity and aims of an organization are stories that have been authorized by the formal organization. These stories, found in such official documents as mission statements and strategy texts, give direction to a desired identity and are therefore formulated in a positive and opportunistic manner (reputation and impression management, wishful thinking). These messages are not reality yet, but a corporate selling of aims, desires and promises. Clarifications that explain why the mission was chosen are often lacking, as are explanations of what it means for the individual members.

Corporate storytelling as a method of change management, a way of talking and persuasion, of igniting action (Brown et al., 2005; Parkin, 2010) can contribute to the present discussion in various ways. Denning (Denning, 2005), for example, introduced the power of the 'springboard story' as a performing art by which he explains how storytelling by leaders can help to achieve the goals of transformational leadership. In this view, the narrative is useful as a tool for change by providing succinct and appealing images of what has to be done. It is believed that it helps people to see the meaning in their work, helps to communicate values, share knowledge, tame the grapevine, and articulate a vision for the future (Allan, 2002; Gallo, 2016). Successful leaders are good storytellers with the power bestselling authors, furnishing the recipe of their own success, just as some biographies of great persons want us to believe, or not.

Besides corporate storytelling, there is organizational storytelling. Here, the focus lies on the stories produced by the people of the organization. These stories are part of an organization's folklore, and their analysis can yield substantial insight into the nature of the organization, its power relations, and its culture (Gabriel, 2000:25). They tell what is really thought and felt: emotions, doubts, dilemmas, struggles, misunderstandings, pain, and excitement. Stories are empirical data, windows into people's meanings and understandings and how they experience their identities, rather than 'facts' or 'truths'. Gabriel emphasizes that stories are not just to be branded as achievements and heroism, but equally as stories of suffering and misfortune: 'The

study of organizational culture must, therefore, restore human sufferings as a central point in the discussion of storytelling' (Gabriel, 2000:94).

The perspectives of corporate storytelling and organizational storytelling can roughly, in random order, be typified in keywords that are used in literature. These opposite dimensions are not strictly contradictory; they just are just as likely to gradually complete each other (Tesselaar, 2008). There is space but also overlap between the corporate narrative and the 'antenarrative soup' of the organizational storytelling (the micro stories of the people in the organization).

Dimension of corporate storytelling	*Dimension of organizational storytelling*
formal organization	informal organization
top management, leadership	stakeholders, members
top-down	bottom-up
result driven	process driven
intended results and outcomes	outcomes that manifests themselves in the reality of acting and language in text and talk
documents	practice
image building, impression management	authentic
opportunistic	realistic
intended and planned	incremental and emerging
organized	organic
future oriented	everyday practice
monological, mono-authored	polyphonic, multi-authored
complete narrative	pre-narratives
macro strategy	micro strategies

organization as static	organization(s) as activity
authorized narrative	in vivo artefacts
managed: control	unmanaged
stories from the field	stories of the field
story as soloist performance	story as play, choral
dominant stories	counter stories
rationality	emotion
coercive	spontaneous
persuasive	sensemaking

Table 1. Dimensions of corporate storytelling and organizational storytelling

2.4 Synergy concept of strategy as practice and narrativity in organizations

Literature on narrative approaches in organization theory show a wide variety of research perspectives (Fenton and Langley, 2011; Rhodes and Brown, 2005). The use of narratives to explore the meaning of organizational experience emerged in the 1980s and 1990s, in addition to the idea that people in organizations are storytellers and that their stories constitute valid empirical materials for research. This linguistic – and more specifically, narrative – turn in social sciences is a move from abstract universal truths to the understanding of how human beings make meaning and construct experience, knowledge, and identity through narratives (Fenton and Langley, 2011:1174).

Some researchers have even observed that organizational case studies more likely derive their power from the narrative elements rather than just from their abstract concepts, since the theory is used as a plot while the stories are effective and persuasive means of communicating research. Weick (1995) goes even further by stating that research itself is sensemaking. This is also suggested by White (1990), who probes the idea that historical meaning is in fact the

narrative imagination of history. However, there is still the ongoing tension between stories and science, as science and stories are seen as separate domains, rather than different forms of knowledge. The traditional view is that science should stick to facts and logic, leaving metaphors and stories to literature. A more nuanced view is to acknowledge that science is employing a mix of rhetorical figures and formal logic (Czarniawska, 1998).

Fenton and Langley (2011) advocate for building a bridge between the framework of 'strategy as practice' and the perspective of a narrative approach to strategy which can greatly add to understanding the practices of strategy. This narrative mode of analysis shows a strong commitment to a social constructivist ontology. There are three key elements of the strategy-as-practice framework: praxis (what practitioners do in their everyday activities), practices (the shared routines of behaviour), and practitioners (the people involved in the practice of strategy). By adding text as an area where the three key elements are mediated, a heuristic framework is created (Whittington, 2006) with the dimensions of praxis narratives, practitioner narratives, practice narratives, and strategy text. This allows for the elaboration of various ways to investigate the interaction between the components.

Brown (2013) describes five specific ways that the narratological 'communication' approach could enrich strategy as practice, in which the practice of interpretation and meaning-making by people is important. Firstly, this approach underlines 'humanizing management research' as it focuses on the social actors: it not only pays regard to the leaders as strategists, but also to the people. Secondly, the approach acknowledges that organizations are polyphonic and multi-languaged, with interplay between the official voices of the organization and its stakeholders. Thirdly, the approach encourages examining equivocality, fragmentation, and ambiguity in the organizational settings. It shows to what extent there is an agreement of meanings amongst the members of the organization. Fourthly, the approach presents micro explanations in the form of stories to seek comprehension and not as concrete facts. And lastly, the narrative approach will lead to more attention being paid to narratives that are marginalized by the power of strategies.

Rhodes and Brown (2005) also underline that nowadays narrative research is multi-faceted and can be mapped in five major areas of using narrative as an inquiry into organizational theory: sensemaking (organizations fleshed out by narratives), communication (stories as forms of discourse), politics and power (stories as a means to construct and reconstruct 'truth'), learning/change (stories as a means to manage change in organizational culture), and

identity and identification (self-narrative as a form of identity). Studies have been conducted to examine the stories that people in organizations tell one another in order to describe past or anticipated events. People use narratives to order experience and thus make sense of it (Rhodes and Brown, 2005:171). From this view of 'narratives as a form of communication', storytelling can be seen as a vital strategy practice, and the strategy as practice community would benefit from greater consideration of narratological concerns (Brown and Thompson, 2013). The turn to language (talking and writing) has been noticed in organization studies and across the social sciences, prompting the proposition that synergetic connections between narratives and strategy-as-practice literature be made. Taking the organization as a collection of discursive spaces and narratives as speech-acts, a narratological approach fits with the strategy-as-practice approach with its focus on people actually creating strategy in the everyday micro-level practice. Attending narrative practices helps managers and researchers take into consideration to what extent the practitioners are at stake in strategy formulation and execution. Doing so can reveal how people's identity narratives are intertwined with an organization's strategy narratives (which are communicated by means of planning documents, strategy texts, and mission statements). From a narratological perspective, organizations are contested polyphonies, and strategies and strategic directions must always be brokered (Brown and Thompson, 2013:6). By researching this interaction, narrativity encompasses both the telling and the told, the strategies and the strategizing in time. The focus on 'practice' in the strategy-as-practice approach is therefore manifold, depending on the 'practices' by its 'practitioners'.

To sum up, an integrative framework of strategy as strategizing activities linked to narrativity, and its turn to language, can be seen as an enrichment of the social studies on the micro processes in the organization (organizational storytelling) and their interaction with the macro process (corporate storytelling). Storytelling is the institutional memory system of the organization. It holds a continuous process of organizing, it stimulates direction. It is the never-ending construction of meaning in the organization by its participants.

The perspective of people as strategizing practitioners in a storytelling organization, contributing with their micro narratives as sensemaking devices to strategies, will be taken as the conceptual stance for the case study of Saxion with its strategy of a Living Technology focus. The reviewed literature provides key aspects for the analysis of the present study. Interesting key notions mentioned are fragmentation, collective versus individual identities, ambiguity, diversity, and coherence. This implies that there exists a tension between macro

narratives (the corporate storytelling) and micro narratives (the organizational storytelling). An important option for research is therefore to examine the degree of coherence between these dimensions of storytelling.

The direction of organizational strategies is conceived as a continuum of corporate storytelling as well as of organizational storytelling. This presumes an ongoing strategy as practice in a multi-discursive process. The strategizing actors in the contextual environment (macro, meso, micro) are simultaneously and subsequently setting direction in the polyphonic discourse within the organization. An important condition in this dynamic interplay is that participants are given and take room to participate in the strategizing discourse and make their own contributions to it. In other words, people in the organization should feel that they are invited and encouraged to act as strategizing actors, and that they are given space to create their realities. At the same time, the organization as a whole is creating a strategic reality as a corporate entity. The balance between a collective corporate identity and individual identities, i.e. the degree of multivocality, is therefore a key issue for studying the sensemaking of the thematic profiling on living technology. The narrative approach in this analysis about living technology is expected to accurately describe and hence reveal the strategic sensemaking process.

3. Research design

An analysis of the corporate strategy of Living Technology through the storytelling of the participants can been seen as an exemplification of corporate storytelling and sensemaking organizational storytelling. The main research question, 'How do participants of Saxion make sense of the strategy of Living Technology through the narratives they themselves tell?', will be answered using the method of the narrative approach. Based on the conceptual framework of narrativity in strategy as practice (Chapter 3), this chapter provides the empirical research design for the case of Saxion. The design is that of a qualitative case study, with a narrative interpretative approach from a social-constructionist perspective. Data were collected from corporate policy texts in order to gain insight into the context of the case study. The case study focuses on the micro storytelling of selected participants from two schools and the executive board. Their stories about Living Technology were collected through interviews.

Section 4.1 explores the characteristics of a case study as a research method. Section 4.2 describes the narrative approach that was taken in order to reveal the stories. Section 4.3 lists the features of interviewing as the main method to collect data from the stories, from a narrative point of view. In Section 4.4 the framework of the case study is specified. Section 4.5 presents some concluding remarks on the importance of reflexivity by the researcher.

4.1 Characteristics of a case study

The research question focuses on how the strategy on Living Technology is made sense of by employees as members of the storytelling organization. The strategy for achieving the thematic focus is expressed in the storytelling of participants in the organization, who 'sell' and 'tell' their understanding of Living Technology, encoded in narratives. Through storytelling, the Living Technology strategy emerges as a process of strategizing in time.

The research on this storytelling can be characterized as a qualitative case study with a narrative interpretative approach from a social-constructionist perspective. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context,

when boundaries between phenomenon and context are not clearly evident, and in which sources of evidence are used (Yin, 1984). Czarniawska (1997) commented on this definition by stating that boundaries between phenomenon and context are never clearly apparent. A case study can also look a the development of a certain phenomenon. Process and focus are chosen by the researcher, and the time frame of the phenomenon is beyond the control of the researcher (a study can come to an end before the case is over, which does not terminate the case for other observers). And the time span of the development of the case is negotiable. To illustrate the frame employed by the researcher, Czarniawska introduced the notion of 'window study': a researcher opens an arbitrary time window and describes all that is in sight. A window study can turn into a case study (when the researcher decides to abandon the window and follow the chain of events) or into a series of mini-cases (Czarniawska, 1997:65).

In line with this perspective, this research opens a window on the phenomenon of the strategy of Living Technology within the context of the organization of Saxion. The collection of data on the process was limited in time, while the process of the case will take longer. Regarded from this perspective, the individual stories are windows within windows: the researcher constructs these individual stories into a sensemaking story. It is like taking photos of situations within particular contexts, and then making a photo album in which these photos are ordered in a particular sequence.

The whole organizational environment can be seen as a space consisting of many realities. There are several layers of realities, each with its own timeline and framing: the contextual macro reality (as described in Chapter 5), the contextual meso reality (the organization of Saxion, which will be described in Chapter 6), and the micro reality, which is specified and limited by the case study of two schools and the selected participants (in Chapter 7). The contextual layers at macro and meso level and the micro layer are continually interrelating. This case study takes the window of the stories at micro level, but also acknowledges that these stories are influenced by several realities, in and outside of the organization.

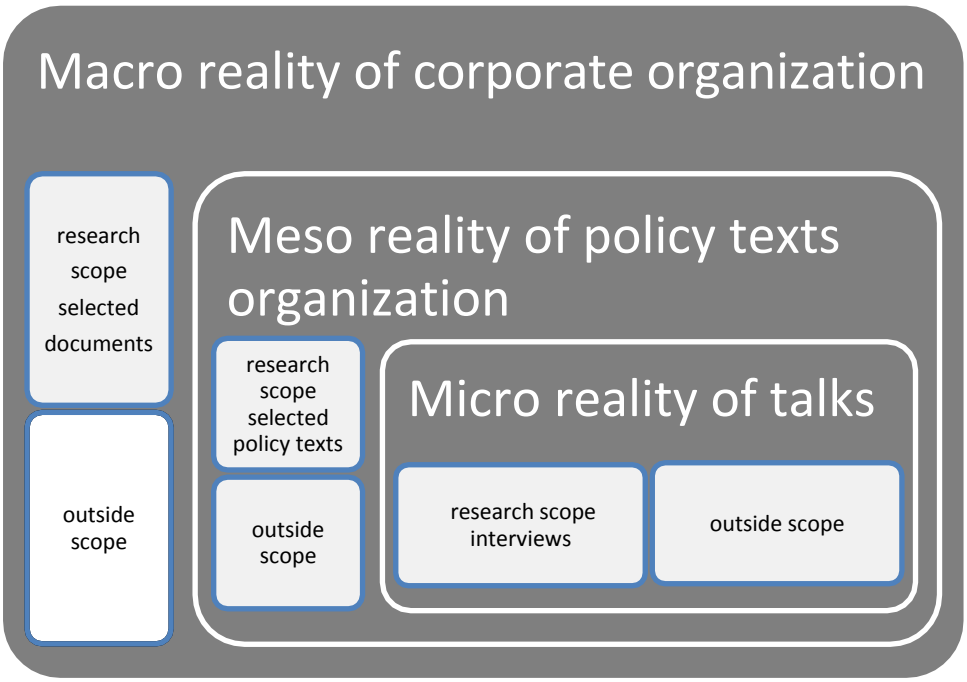

Figure 2. Realities of organizational environment

In each reality, there is a managed reality which is constructed by the research design, and an unmanaged area that lies outside the chosen scope of the research. The 'window' of this case study is limited by its perspective on a specified reality, by the time period that was researched, and by the sources that were selected for data collection.

4.2 The narrative lens

The narrative approach in organizational theory encompasses the practice of people that participate and contribute to the strategizing of their organization. Their stories give insight into the process of strategy as practice in the organization. By collecting and examining stories, we gain a clear understanding of organizational realities, as they are closely linked to their members' experiences, as repositories of meaning. Considerable scholarship in the field of organizations has recognized the importance of the narrative lens (Brown and Thompson, 2013; Gabriel, 2000; Gabriel and Griffiths, 2004; Gabriel, Geiger and Letiche, 2011). For several reasons, stories can be used as material in social organization research: as elements of organizational culture, as vehicles for organizational communication and learning, as expressions of power and political domination, as performances for and interactions with

audiences, as forms of discourse analysis, as forms of data, as theoretical lenses, and as methodological approaches. Stories are especially important vehicles for organizational learning and socialization as well as for exercising influence. In addition, stories provide fertile ground for facilitating organizational change and innovation. Thus, there are various ways to perform narrative analyses, depending on what the researcher is looking for. This research focuses on the understanding and sensemaking of 'Living Technology', while taking into account the macro and meso contexts as points of reference for the design of the interviews through which the stories are collected.

Storytelling as a narratological method is an interpretative approach. The narrative researcher collects and interprets the stories people tell. This kind of interpretation is similar to that applied to other semiotic processes : 'seeking to paint a general picture from individual signs or clues' (Gabriel and Griffiths, 2004). It is a hermeneutic process of looking for patterns, similarities, and differences through 'close reading'. It is an iterative process that requires series of reading and rereading the data, in order to analyse and arrive at an interpretation of the individual stories in connection to those of others.

Examining the understanding of participants by analysing their stories is an inductive, interpretative, and constructive process, which resembles the hermeneutic circle (Gadamer, 2014), not only as a method, but as an ontological fundament. Perception of the outside world always means interpretation of the outside world, and language is the universal medium of understanding. Interpreting reality and language goes beyond passive reading or just observing, listening, or recording. An active stance is required to grasp the meaning ('verstehen') of the story of the other and to understand the perspective of the other.

Therefore, qualitative research involves reconstructing a constructed reality: interpreting what people tell (which already is a constructed reality), taking notice of layers of realities and interpretations. This way of interviewing involves making observations and interpretations of constructed realities, taking into account that what the interviewees say need not correspond to what they think or do.

A hermeneutic approach is of a dialectical nature, as it is in the dialogue between the researcher and the interviewer that understanding can arise. This understanding, as Gadamer describes it, is a process of understanding from parts to whole, from whole to parts. By means of a concentric, iterative, inductive process of interpretation, researchers deepen their understanding ('verstehen'). The idea is to convey the meaning of what the interviewed

participants say or intended to say. The hermeneutic circle ends where one reaches a place of sensible meaning (from the perspective of the researcher). Thus, the same set of data would not result in the same sensible meaning if another person was to perform the analysis.

The hermeneutic approach focuses predominantly on language as the medium for understanding. That which is not said – intentionally or unintentionally – does not fall within the scope of the corpus of research. And what is said is also a constructed reality of the participant, as the focus is on the expressed construct of the interviewee and not on their actual performance. The researcher is therefore not making observations about actual behaviour (the way participants really act), but about how they themselves reflect on their realities.

The most important factors influencing the narrative lens are the research question and the focus of the interview, as they direct the way in which stories are collected and interpreted.

4.3 Collecting data by interview

Interviews are a preferred and valued type of data collection in qualitative interpretative studies, as an interview provides a closer look into the sensemaking process. Silverman (Silverman, 2007) describes the interview as a controlled conversation, where the interviewer has some level of control. The interviewer tries to interact with specific persons, attempting to understand their experience, opinions, and ideas, initially introducing a topic for discussion and then producing follow-up questions asking to unpack certain key terms. The interview is able to achieve a level of depth and complexity that is not available to other, particularly survey-based, approaches. The interview is not meant to be a research source which reveals 'facts' about the case reality, generating data that are 'valid' or 'reliable'. In contrast to such a more or less positivistic approach, the interviewees are viewed as experiencing subjects who construct their world (Silverman, 2007:118), which generates data that give authentic insight into people's experiences, or, to be precise, their representations of those experiences. The type of knowledge generated by this constructive approach reflects how the interviewees create meaning.

In this controlled conversation, the interviewer is a subject creating the interview context. Being present in a conversation is communication by definition; it is impossible not to communicate (Watzlawick, Beavin, Jackson, 1967). Interviewing is thus not just recording, but an active conversation process of co-creating the situation, raising topics for conversation and inviting the respondent to share information. Another characteristic of the interview as research method is its fixed setting. It focuses on a fixed moment in time and place by using language as the sensemaking medium. The context of a conversation provides information through language, in terms of what is said, but also through clues that can be observed and experienced (like gestures, atmosphere, and smell). Although the latter, non-verbal sensemaking information should not be underestimated, it falls beyond the scope of my research. I will focus on the data that is written (in the policy texts) and the data that can be derived from the transcribed interviews.

Taking the point of view of the interview as a controlled conversation, there is a continuum running from more to less control on the part of the interviewer. The 'open approach' of less control by the interviewer can be typified as a way of collecting data 'bottom up': it is an inductive process, in which stories are collected without an initial theory or assumptions. The 'focused approach' of more control by the interviewer can be characterized as a deductive approach, in which stories are collected according to an initial perspective or theory. While the first approach is based on the assumption that stories need just 'be found' because they are there, a focused approach regards stories as data 'to be created and interpreted' and not just objects to be discovered and collected. These two approaches should not be seen as opposites, but as a continuum between two poles of states of control.

An open approach can be found in studies by Gabriel and Griffiths (2004). They describe a bottom-up approach in order to collect stories, and categorize them in four modes of subjectivity – the hero, the survivor, the victim, or the love-object – according to the following method:

- Interpreting the dominant theme (e.g. accident, joke, crisis + main characters)
- Interpreting the underlying emotional qualities (e.g. pride, anxiety)
- Interpreting the dominant narrative form (e.g. tragic, comic, suspense, epic)

Gabriel and Griffiths see the role of the researcher as that of a 'fellow traveller', someone keen to engage with the narrative emotionally, displaying interest, empathy, and pleasure in

the storytelling process, and in a role that combines passivity with activity. Features of this approach are that it is inductive, it is open to finding and collecting stories by encouraging the interviewees to tell spontaneously, and that the interviewer has no predetermined agenda or themes. The stories await discovery in the resulted data. A story is constructed out of the data by the researcher, and as a companion traveller, the researcher contributes to and supports this storytelling process as a storymaker.

Another example of this open, inductive approach can be found in the grounded theory approach (Strauss and Corbin, 1990). The main purpose of the grounded theory approach is to develop a theory out of data. Instead of starting with a theory and then trying to prove it, it begins with an area of study, and everything that is relevant to that area is then allowed to emerge. Literature is not used to test a theory but to help formulate accurate descriptions, provide ways of approaching and interpreting data, stimulate questions, etc. In this approach, the research questions are statements that identify the phenomenon to be studied. They should be oriented towards 'action' and 'process' (e.g.: 'What organizational changes do you experience because of the focus on Living Technology?'). Strauss and Corbin describe in detail the process of analysing data as an iterative system of inductive and deductive steps. The 'creative' researcher is constantly asking questions about the data ('what is going on here?') with an attitude of scepticism, trying to understand the data of the phenomenon.

This process resembles the heuristic approach of Gadamar's 'verstehen'. The story is 'in' the data, and has to be found. The metaphor of a jigsaw puzzle may be appropriate to illustrate this 'verstehen'. It is like trying to complete a jigsaw puzzle, but the cover with the picture is missing. Fitting the pieces of the puzzle together is a process of coding in steps. Initially, similarities and categories are identified in the open coding phase. Then, axial coding is performed to establish connections between categories, culminating in a set of relationships: a paradigm model is drawn up denoting conditions, context, action, and consequences. In this phase, the researcher inductively proposes relationships and deductively checks them in the actual data collected. This is a trial-and-error process of fitting pieces together. The coding is finalized by selective coding, which leads to a picture of reality that is conceptual, comprehensible, and grounded. Essential during these steps is interpretation, coding only what is seen or, even better, what the data show. Also in the grounded theory practices, the researcher actively interprets, but at the same time has to avoid assumptions, experience, or immersion in literature, or at least has to make any of these potential biases explicit.

Many case studies are based upon a structured and focused perspective, in which the data are linked to propositions and criteria (steered by the research questions). An example of a focused perspective of research is a rhetorical approach (Feldman et al., 2004). This approach involves an analysis of the internal arguments of participants' stories about change, and is based on concepts from classical rhetoric and semiotics in order to reveal and make more available the unstated, implicit understandings that underlie the stories people tell. The rhetorical analysis approach unearths the underlying logic and assumptions that are implicit in the story. The method first involves identifying the story line and transcribing the specific story while taking into account the overarching narrative of organizational change (using such phrases as: 'this story is about …', 'the narrator talks about …', 'and states that …'). Then the researcher interprets implicit and explicit oppositions. The interpretation is done in several rounds by several researchers looking for intersubjectivity, comparing and combining the individual analyses, inductively and iteratively.

The research method of the semi-structured interview applied here requires an open setup that invites participants to tell their stories. In order to emphasize that this was not a structured interview but a conversation that would explore how LT is made sense of, the meeting was labelled as a 'conversation' both in the invitation and in the opening sentences of the interview. Imperative was that respondents not get the impression that they were being questioned about the organization's preferred policy. The interviewees were told that there were no good or bad answers to the questions. They were explicitly invited to tell their stories in their own way.

An attitude of active listening is of key importance for a semi-structured interview, as it allows the interviewee the freedom to talk and attach their own meaning. An inviting attitude is required from the side of the interviewer, who should explore the answers, as a fellow traveller, e.g. by asking further questions, explaining questions, paraphrasing, and summarizing. It is best practice to encourage respondents to tell their stories from their own context, if one wants to gain stories through interviews. Storytelling can furthermore be encouraged by posing open questions using 'how' and 'why': Why do you think so? How did you do that? How so? These should be supported by such nonverbal communication as active endorsing gestures. By following these guidelines, the interviewer adopts a stance of being sincerely interested in the perspective of the interviewee. The order of the questions, for example, and the length at which they are discussed partly depend on whether and to what extent the respondent takes the initiative. The themes appear in a cyclic, iterative pattern, thus

offering the respondents several opportunities to discuss them. For example, the theme ‘meaning of LT’ can be discussed at several moments during the interview, for instance when answering the questions: ‘What does the term LT mean to you?’, ‘Can you give an example of LT?’, ‘What do you mean by ‘living’?’, ‘When is the term ‘living’ unsuitable?’, and ‘Is there any technology that cannot be called ‘living’?’ This method ensures a degree of redundancy which is required to achieve more consistency in the responses. In addition, data saturation is achieved with regard to sensemaking by the respondents. At the end of the conversation the interviewees are asked whether they want to add anything.

In this case study, the research question is about a particular topic, namely the strategy of Living Technology, taking into account the contextual features of the macro and meso environment of the organization. From this context, relevant contextual features were derived (see Chapters 5 and 6), that were taken as the reference themes to be discussed in the interviews. The interviewing strategy can therefore be typified as having a focused, semi-structured approach.

4.4 Framework of the case study

The hermeneutic unit of this case study focuses on three segments of data:

- the corporate policy texts of the organization,
- the decentralized policy texts of two of its schools,
- and the stories told by participants of the organization and decentralized schools.

Although the strategy of Living Technology involves the whole organization, for this research, three different segments were selected as units of analysis: The School of Life Science, Engineering and Design (LED), the School of Social Work (SW), and the Executive Board (EB). This selection was made for practical reasons of manageability. The narrative research approach does not aim to produce general validity for the whole population. Sampling for the purpose of valid statistic generalization for the entire population of a department or for the organization as a whole was therefore not appropriate for this research. These two schools were selected as they might have different perspectives of Living

Technology, owing to the nature of their professional fields. LED offers course programmes in which technology lies at the heart, while Social Work describes their programmes as very much oriented towards people who are in vulnerable situations. By taking these two essentially different professional profiles, a variety of connotations of 'living' and 'technology' can be revealed.

As a reference for the interview design with participants of the selected segments, the organization was characterized by an analysis of policy texts, both at the corporate level and the decentralized level of the departments. The method of interpretation consisted of close reading and mapping the connotations of Living Technology as they emerged from these texts. The outcome of this analysis provided a frame of reference that was used to generate the initial codes for the semi-structured interviews. The data collection consisted of formal documents of the planning & control cycle (strategy reports, annual business reports, annual review reports), written during the strategic period of 2012-2016 (see Appendix 5).

Key to the interpreting process of the policy reports and the interviews is the coding of the raw data: key themes and patterns were identified, which resulted in the generation of categories from the qualitative data. The raw data was not only reduced to common denominators, but by doing so codes were generated, in order to conceptualize and analyse the data. Coding therefore was part of the analysis process: 'We prefer to think in terms of generating concepts from and with our data, using coding as a means of achieving this' (Coffey and Atkinson, 1996:26). The coding process is a way of channelling; it links data fragments to a particular idea or concept. Coding is thus not just a mechanistic process of creating tags and categories, but an interpreting process by itself. It is a balancing between an inductive and deductive method: 'Coding can be thought of as a way of relating our data to our ideas about those data. Because codes are thus links between locations in the data and sets of concepts or ideas, they are in that sense heuristic devices.'(Coffey and Atkinson, 1996:27).

For practical reasons, an operational segment of the total population was selected from the analysis unit of the two departments.

From the population of all teaching employees in the school, a segment was chosen of employees with direct responsibility for education and/or research. Staff working in education support positions have not been included in the segment. This segment was stratified according to the three segments of the analysis: Executive Board, the School of LED, and the School of SW. The operational population has the following characteristics:

- All respondents already worked for the organization in January 2012, and on at least a 0.6 FTE contract. This to ensure that, in principle, they have been able to gain enough experience with the context of the LT strategy;

- All respondents are directly responsible for educational and research duties. The formal job description of the respondent is ‘lecturer’ or ‘team leader’;

- All respondents work in one of the following segments: Executive Board, School of LED, School of SW;

- If working within the unit of a School, the respondent has the role of dean, team leader, or lecturer/researcher.

As a result of this operationalization, some variables are left outside the scope of the case study, for instance sex, age, disciplinary background, and working experience. Furthermore, the interviewees have very different variables, like their roles, duties, contracts, the duration of their employment, their gender, their attitude towards technology, and their vision on technology as it used in their professional field. I researched their individual stories as single cases, not regarding them as representative of the entire population. Although there might be a correlation between variables that influence their perspectives, these correlations lie beyond the scope of the research question. In the interview design, these variables were taken as a given; they were not used for statistic purposive sampling.

Random samples were taken from this population by numbering the elements in each segment and making a random selection. The exception to this rule is two members of the executive board and two deans, one of each school.

Unit of analyses	Function	N Segment Date February 2016	Invited participants	Accepted respondents
Executive board: EB1 EB2	 Chairman Vice Chairman	 1 1	 1 1	 1 1
LED: LEDd LEDt LEDl	 Dean Team leader Lecturer/Researcher	 1 10 73	 1 4 11	 1 2 3
SW: SWd SWt SWl	 Dean Team leader Lecturer/Researcher	 1 7 118	 1 3 10	 1 3 3
Total			32	15

Legend:

- EB: Executive board
- LED: School Life Sciences, Engineering & Design
- SW: School Social Work
- d: dean
- t: team leader of a programme
- l: lecturer/researcher

Table 2. Unit of analysis

The selected respondents received a personal invitation from the researcher through the organization's mail server. Next, they were invited for a conversation at times when the researcher was available. The proposed place of the interview could be chosen by the respondent: at the researcher's office or their own. As the table shows, 17 of the invited staff did not want to take part in the interview. Of these 17, five invitees said they simply did not want to take part in it, five said they did not have the time, six of them did not reply (in spite of a repeated reminder), and one invitee could not manage to attend the interview in person. Whether refusals to participate in this interview setting can be attributed to the theme or to the interviewer has not been investigated. Interview fatigue could play a role.

The interviews took place in the period of June to December 2016. The time allotted for the interviews was 60 minutes, including a short opening with social talk and concluding remarks

afterwards (in the form of an explanation of the purpose of the survey). In practice, the interviews took between 26 min.43 sec and 43 min.38 sec; the total time for the 15 interviews adds up to 9 hours and 53 minutes. The total word count of the transcriptions is 66,908. All interviews took place in person, in the researcher's office. The language in which they were conducted was Dutch. The interviews were recorded after having obtained permission from the respondents on the basis of confidentiality. The respondents were given access to the transcriptions of their interviews, and they were given the opportunity to fill in/repair any omissions, e.g. if they felt they had been misunderstood. No one used that opportunity. The respondents gave permission to use the data for the purpose of the research on condition that the data would be anonymized and the transcripts would be confidential. However, respondents were aware that readers would be able to guess the identity of some respondents, due to their position (like 'dean') or based on their statements.

Some respondents gave general feedback. For instance that the interview was interesting, it helped to sharpen their opinion on the LT strategy, it raised questions about the LT strategy, it showed how uncertain they were about the LT strategy. Overall, the researcher gained the impression that the respondents experienced the interview as inviting, and were given enough opportunity to tell their stories.

The recorded interviews were then processed by the researcher, with the exception of two interviews that were dealt with in draft by a trainee. Although time-consuming, this process of transcription greatly enriched the research, as repeated listening and reliving the interview deepens the heuristic process of understanding. On the other hand, some of the richness of non-verbal human communication (e.g. tone, facial expression) is lost in recordings, and other aspects of communication are lost in the transcription process (e.g. pauses, hesitations, slips or errors, volume, intonation). There is always a degree of loss of information in the transition from the original interview at a particular time and place to its recorded and transcribed version.

Standardized transcriptions were conducted on the basis of the recordings. The transcriptions are a literal copy of the uttered sentences and words, without grammar or redundancy corrections. The transcripts are the data input for the data analysis process, which aims to find patterns and relations in the data of the hermeneutic unit. This is a recursive and holistic process: the researcher needs to go back and forth between noticing and collecting, between parts and the whole. The process of coding involves phases which run from close reading to

identifying general themes. The data are organized by means of inductive coding of the interview themes, from which analytical categories are generated; the generalized patterns are then related to the initial codes and the conceptual framework.

The process of analytical coding deepens the understanding of the data and provokes additional thoughts about them. It is a process of listening to the data in several cycles (Fries, 2014). The first cycle constitutes a descriptive level in which the coding is closely linked to the data, from the inside out. All the data is coded, but its interpretation is still very open. This descriptive cycle generates a first saturation of initial codes which are directly related to the quotations. ATLAS.ti was used for this first cycle of analysis. In a second analytical cycle, the researcher aims to conceptualize the initial codes by classifying, prioritizing, integrating, synthesizing, and abstracting. This is an active process of reading the initial codes over and over again, asking questions about the data, and finding relations. In the second cycle, I preferred to reread the codes and quotations within the context of the full texts (transcripts), instead of using ATLAS.ti intensively. See Appendix 3 for an example of the coding process.

4.5. Reflexivity

This case study presents an analysis based on an inductive and interpretative approach. A characteristic of this qualitative approach is that it follows a hermeneutic, concentric circle. Parts (the initial codes) are referenced to the whole (analytical codes) in order to allow conceptualized conclusions to be drawn. It is a search into the sensible meaning of the texts and talks, from the perspective of the researcher and his research questions. By going over the data repeatedly, concentrically, and iteratively, in search of meaningful patterns, a degree of saturation is achieved. The conclusions have been drawn up by the researcher, and therefore add a quality of the texts and transcripts that were used to the data. As a result, the study outcome consists of new constructed texts.

The applied research design has a certain scope. The data have been collected in a specific period (2016), from a particular selection of texts, and randomly chosen participants from three segments (executive board, SW, LED). This limits the validity of the results. The validity of the interviews is context-specific, within this scope. That which is stated by the interviewees in the interviews does not necessarily correspond to how they will respond in other situations.

The data set that was generated and analysed has its limitations, by definition. Firstly, the same set of data could lead to different interpretations if regarded from a different perspective and by other researchers. Secondly, organizations – or rather, their participants as actors – are in a continuous state of development. If the interviews were to be held during another period this could lead to new data and interpretations. And thirdly, the study's results could be interpreted otherwise if other texts are used, or if other research methods are applied (e.g. observing real behaviour, studying the use of other communication media). In short, although the results are valid (or 'true') within the outlined limitations, they cannot be generalized towards other cases.

The interview has an active and interactive setup which is influenced and limited by several variables related to both the respondent and the interviewer. How these variables may influence the storytelling lies beyond the scope of this research. We have to accept, however, that they may have a certain effect. Stories exist within a context, and arise from contextual features. The first variable is the chosen thematic perspective. The themes of the interview as well as the conversation topics are determined by the thematic codes derived from the organization's texts. Choosing for another interview design would probably result in other outcomes of the interviews. A second variable are the characteristics of the respondents. Every respondent is unique in the sense that their storytelling is of course influenced by, for instance, their disciplinary backgrounds, experience, roles, and positions in the organization. A third variable is the context: time, place, and period of the interview, and the atmosphere during the interview. A fourth variable is the researcher in his role of interviewer. The research was conducted by the author, who is a researcher and, simultaneously, an organizational participant in his capacity of Dean of the School of Health and long-standing member of the Board of Directors. In this role, he is seen as one of the responsible change agents of the strategic policies. Besides the publicly available formal documentation, the researcher has 'tacit knowledge' based upon practical knowledge, informal 'inside' information, and personal experience. As he is an engaged observer, the researcher has to be very aware of potential biases, in particular when using qualitative interpretative research methods (Boeije, 2010; Silverman, 2007; Van de Ven, 2007; Yin, 2003). The researcher has to adopt a 'not-knowing stance' and avoid 'going native', as the aim is to learn from the participants what their experience was like and what their stories are. An attitude of sincere curiosity is key, raising topics through open questions, further elaborating on given answers, and making use of the techniques of paraphrasing and reflecting. The researcher is acquainted

with some of the interviewees (e.g. members of the executive board and deans of the schools), but other interviewees were new to him, as he had neither worked with them nor had any information on them. Although there is no hierarchical relation between the researcher and the respondents (with the exception of the chairman CEO), a position such as dean (as the researcher is) could influence the openness of the respondents (may be more reserved, or more open if they want to be heard).

Healey (2017) notices crucial advantages of the insider research approach for qualitative research: the researcher has a good understanding of the politics within the organization, and his position and extensive personal networks help to gain access to documentation and senior managers. Credibility, peer respect, and familiarity with the organization are advantages for the level of understanding in the interviews. But at the same time Healey (2017) marks the possibility of bias due to lack of inter-observer consistency and the risk of filling in interpretations based on prior experience and knowledge. To guard against these possible sources of bias one must constantly be reflective, ask participants to confirm and clarify their responses, and repeatedly test emerging conclusions.

Research using a qualitative approach is limited in meeting the demand for objectivity as developed by empirical–analytical research, with its standards for measuring and replication. The narrative approach is not looking for claims of standardization but for a unique understanding which is temporary and provisional. Its interpretations are not universal scientific truths, based on a positivistic approach of facts and logics. The truth from narratives is the lived reality of organizational life. Narratives and their interpretations are empirical material for analysis, generating arguments that will provide understandings and meanings for a particular time from a particular view in a particular contextual setting. As Rhodes and Brown (2005:8) state, 'the 'fact' that any series of events can be narrated in a plurality of ways is less of a 'problem' for research; it is an issue that has at its core how researchers should take responsibility for their work'.

The use of narratological perspectives as a research method in a qualitative approach demands reflexive scholarship, due to its interpretative processes. It is deemed impossible to leave behind one's perceptions as a researcher. This calls for great attention to the reflexive recognition of the researcher in order to evaluate rigour in interpretative phenomenological research. Researchers have to take responsibility for the stories that they author and to acknowledge their precarious epistemological status, to guard themselves against self-

indulgence and the fantasy that their representations are innocently objective or definitively accurate (Rhodes and Brown, 2005).

In summary, looking at realities is inevitably characterized, limited, or enriched, by perspectives. Interpretation is by nature an organized construction of an observation. The distinction between open and focused approaches can be seen as poles on a continuum of explicitness of stance of the researcher. These are the lenses through which observations are made by the observer, the researcher. The researcher is not just a recorder that 'objectively' documents reality; even if he were, the features of recording also function as a lens upon the observed reality. The lens of observation as well as that of data collection is focused by the research question and the case study framework of sensemaking of Living Technology by participants. I opted for an open, semi-structured interview design, using initial codes from the corporate texts as context keys to start and enrich the conversation in the interviews.

Chapter 5 describes the macro-contextual environment of the UAS and its chosen strategy. This will give insight into contextual features that may influence the strategic decision making as such. Chapter 6 focuses on the meso context of the case study, extracting the themes in the storymaking out of the formal policy texts of the organization. These themes will provide a reference framework for the micro context of the interviews (Chapter 7).

4. Macro context of Saxion case

Over the last decades Higher Education (HE), the sector of Universities and Universities of Applied Sciences (UASs), has been subject to major transformations. There are a number of influences that are causing shifts in the strategy and execution of the sector as a whole, all of which has serious implications for the individual policy of universities. Some believe that this transformation is so immense that the traditional paradigms extrapolating the past are no longer adequate (Duderstadt, 2000). Political and economic actors are less predictable. And this discontinuous change requires discontinuous, upside-down thinking to deal with it (Hardy, 1989).

The signs of these changes in the Netherlands can be touched on as follows. HE is also considered a private good or even a commodity by critical consumers, as the annual reports on student satisfaction have become important benchmarks in marketing. In governmental policies, HE is increasingly mentioned as a determining factor in economic growth. HE is expected to contribute to a perfect fit of human capital towards the demand from the markets and employers. This has resulted in discussions about the (room for) autonomy of HE institutions and the 'academic freedom' of the faculty. Financial responsibilities, funding issues, and accountability towards consumers, stakeholders, and taxpayers are subject to debate as well. From a societal perspective, governmental authorities have formulated explicit demands on increasing participation of students in education and research, the qualifications of graduates, and the value or usefulness of research outcomes. Overall, certain keywords are prominent in the debate: massification of the system, an emphasis on consumerism from the side of stakeholders, and accountability for the suppliers of higher education (Shattock, 2003; Duderstadt, 2000).

In this chapter, we briefly explore the current environmental context by describing some of the main macro features that set the agenda for strategies by UASs in general in the Netherlands, and in particular their influence related to thematic profiling policies. Taking the notion that an organization acts in an environment of influencing contextual features, we raise the question of where the urge for thematic profiling originates from, and which policies instigated this strategy.

Section 5.1 maps some characteristics of the position of UASs in the landscape of HE in the Netherlands related to profiling strategies. Section 5.2 focuses in on the distinctive importance

of the mandate on practice-oriented research in UASs, which is one of the drivers in strategies of thematic profiling. Section 5.3 reveals patterns at the macro level of the contextual agenda that affect policymaking at HE organizations. These agendas are also contested in the academic field. Section 5.4 sums up the discussed characteristics of the macro landscape.

5.1. Positioning the UAS in the Dutch HE landscape

The Dutch term 'hogeschool' is equivalent to the term 'University of Applied Sciences' (UAS), which in 2008 became the officially recognized term to be used in an international context. Other English terms are also used in European countries: polytechnics, university colleges, institutes of technology, and colleges of education. An exploratory study commissioned by the European Network for Universities of Applied Sciences (UASNET), mapping applied research at European UAS institutions in 11 countries (De Weert and Soo, 2009), describes joint features that justify the typology of a UAS-sector. Knowledge and skills in the UAS programmes are geared towards professional practices, while in universities instruction is concentrated on merely scientific and academic subjects, and therefore not or not directly connected to practice(s). Despite these differences there is reason to regard the Universities of Applied Sciences as a group 'outside the University sector' (Kyvik and Lepori, 2010).

In several West European countries, schools for education and training of vocational positions have fairly recently developed into higher education institutions that went through a period of growth in numbers as an answer to the massification of higher education. In the Netherlands, this development took place mainly in the 1980s, encouraged by the national policy of increasing inscale, dividing tasks among the providing programmes, and concentrating or merging into a limited number of, mostly comprehensive, regionally-based UASs. Currently about 65% of all students entering higher education are enrolled in the UAS sector, as opposed to about 35% in the so-called traditional universities.

The history of the UAS in Netherlands originated in the 19th century, in response to a need for employees in growing industrial activities. In 1886 the Act on Higher Education made the formal distinction between universities and 'hogescholen', which is still the existing binary system. Up to the 1960s there was room for 'new' universities that previously had roots as a

‘hogeschool’ (like Erasmus University in 1966 and Twente University in 1961). Since 1993, the UAS is regulated by the Higher Education and Research Act. This Act distinguishes two types of higher education, namely the ‘hogescholen’ and the (traditional) universities, which share some common regulations, but still have formal differences in funding and the research mandate (e.g. the ‘ius promovendi’). This Act created the possibility for research to be conducted at ‘hogescholen’, in addition to their longstanding historical roots focusing on vocational teaching and training (mostly at undergraduate level), although it was very reticently formulated, stating that they can carry out research to the extent that this is connected with the education at the institution. At first, no further regulations were set and neither was an additional budget made available. Nevertheless, it opened up the opportunity for research.

Originally, the ‘hogescholen’ had no formal research mandate. The schools or programmes were purely based on teaching and training for particular vocations and professional practices. Research as such was not defined as a task or competence within the framework of the curriculum, but inquiry-oriented activities were part of the curriculum (in particular within the framework of assignments during placements and the final thesis). The OECD (1998:57-58) emphasized the value of research in teaching: ‘ (...) all students, whether enrolled in university or non-university institutions would benefit from an active research and scholarly culture in which they participate both directly and indirectly, because research, broadly defined as structured, critical inquiry and its applications, provides the foundations for the acquisition and critique of knowledge (...) being a student means being an active, reflective, critical inquirer’. And (...) ‘all teachers should be au fait with current knowledge and major recent discoveries in their field (...)’.

This notion of the need for students and lecturers to become active, reflective, and critical is now widely acknowledged in the national educational and professional profiles, which commonly state that professionals have to be able to act in complex, ever more rapidly changing environments. The professional that is equipped with competences for a lifetime no longer exists. The keywords in these professional profiles are continuous innovation and flexibility to learn and adjust. Only with such an attitude is the professional assumed to be capable of playing a role in an innovative and competitive environment. Faster changing professions, and pressure on competitiveness and performance from the sides of economy and society have resulted in new expectations for UASs. The future graduates should see themselves as agents in a process of steady innovation and improvement. They bring into the

organization an immanent discontentment with the message: it can and should be different and better (Leijnse, Hulst, Vromans, 2006:8).

That the UASs are to play an important role in this call for new professionalism and innovation was underlined by the Dutch national association of small and medium enterprise (MKB Nederland), the national employers' association (VNO-NCW), and the Netherlands Employers Association of UASs (Vereniging Hogescholen). Likewise, the Advisory Council on Science and Technology considered the research activities of UASs, described as 'design and development', to be important, as they contribute to the development of professional practices (AWT, 2005).

From 2001 onwards, the mandate for practice-oriented research was implemented and supported with financial means through the so-called 'lectorates'. A lectorate consists of a lector – someone holding a senior position – and researchers, cooperating in so called knowledge or research centre. During its first years, 2001-2008, initiatives from UASs were conditionally financed and monitored by an external board (SIA). During this period, a quality control was developed in order to assess the process and outcomes of the lectorates (HBO-Raad, 2007). After extensive evaluation (HBO-Raad, 2008) practice-oriented research by lectorates has become subject of quality control at every individual UAS, and its funding has become an integral part of the subsidized, lump-sum finance. This development shows that applied research at UASs has moved from an optional 'UAS can carry out research' (Act on Higher Education 1993) to a mandatory 'UAS must carry out research' (HBO-Raad, 2008). The performance of applied research is further developed and is meant to be reflected reflected by specified indicators, and has become subject of the national quality control on practice-oriented research.

During the 'breeding period' 2001-2008, the mandate was settled in the formulation of two different objectives. On one hand, practice-oriented research should improve education through the interface between education and professional practices. On the other hand, research should also contribute to innovation through knowledge exchange with industry. The latter should particularly take place within the region and above all with small and medium enterprises (SMEs). The assumption, therefore, is that intensified bonds with industry and government through research will lead to benefits for society and industry, as well as for education.

5.2. Practice-oriented research as leverage for innovation

Research at Dutch UASs is usually referred to as 'practice-oriented research' (translation of 'praktijkgericht onderzoek') for the benefit of professional practices the UASs are training for. In the European context, this type of research is commonly typified as 'applied research' (Kyvik and Lepori, 2010). Because of the various linguistic connotations of the terms 'practice'/'practices', in this thesis the term 'practice-oriented research' will be used as an equivalent for 'applied research' conducted at UASs.

Applied research in the area of knowledge production and innovation is a complex as well as wide area. Within the scope of practice-oriented, applied research, when focusing on 'practice' and 'use', the perspective of Gibbons' mode 2 (Gibbons et al., 2011) and Etzkowitz's 'Triple Helix' (Etzkowitz, 2008) are relevant. Furthermore, the concept of the research–teaching nexus formulated by Jenkins, Breen and Lindsay (2003) and Healey and Jenkins (Healey and Jenkins, 2009; Healey, 2005; Jenkins and Healey, 2005) can be related to these perspectives, as it typifies ways of positioning research and education.

Gibbons et al. (2011) introduces the 'context of application', which tries to pin down an applied perspective on research and innovation. Their concept sheds light on the meaning of the 'applied' focus and 'professional orientation', the key terms used the most when discussing the identity of the sector UAS.

They describe an emerging system of new production of knowledge, which is characterized as mode 2 in comparison with another already existing system of mode 1. New in mode 2 is that knowledge is no longer primarily produced in scientific institutions and therefore structured by scientific disciplines, with its traditional locations, practices, and principles. Mode 2 knowledge is produced in the 'context of application', in transdisciplinary cooperation, and as such, is 'socially distributed'. While mode 1 knowledge is typified as having been produced in a more traditional, linear way, clearly fixed in time and place, in mode 2 the starting point for the agenda-setting of research is derived from a problem in a context of application (societal or industrial practice). Research is formulated and carried out by a heterogeneous network of participants (like scientists, policymakers, users, employers). Gibbons describes the emergence of a new dynamic of knowledge production as result of the massification of education and research. The number of knowledge workers has increased and so, therefore,

have the sites where they contribute to the intellectual resources for research and development. Another factor is the technological infrastructure, through which rapid dissemination of knowledge has become practice in order to fulfil the needs of both science and society. And from the demand side there is a growing call for knowledge, steered by intensification of (international) competition in business and industry.

Despite their different features, modes 1 and 2 are, or could be, complementary in their contribution to the body of knowledge. In one mode, the dynamics of autonomous scientific excellence are leading; in the other, the dynamics of relevance and application are dominant. There can be a gap between the scientific researchers who keep the professional practice at a distance and are not primarily interested in use. Professionals, conversely, are limited in using models and theories that could be relevant for a specific context. Therefore, modes 1 and 2 can be seen as potentially supplementary layers, although Gibbons expects mode 2 to become increasingly dominant. This concept of 'context of application' can be enriched by introducing the dimensions of 'quest for fundamental understanding' and the dimension of 'considerations of use' introduced by Stokes (1996). The 'context of application' approach is on a par with the focus of 'considerations of use'.

In line with Gibbons' context of application concept, there is that of the Triple Helix (Etzkowitz, 2008), which assumes that industry, university, and government are interdependent. The interaction among these three helixes is the key to innovation and growth in a knowledge-based economy. Consequently, he claims that there is an 'overlay of reflexive communication' between institutions and these sectors. In this concept, the linear model of utilization of scientific knowledge is replaced by new processes such as programmes initiated by governments (local, regional, national, transnational). These programmes encourage and facilitate universities and industries to collaborate simultaneously. Etzkowitz states that within this collaboration the university has a competitive advantage over other knowledge-producing institutions – its students: 'Their regular entry and graduation continually bring in new ideas, in contrast to the research and development (R&D) units of firms and government laboratories that tend to ossify, lacking the 'flow-through of human capital' that is built into the university' (Etzkowitz, 2008:1). In building the Triple Helix, universities develop ways of intensive collaboration (like sharing facilities and knowledge) that lead to formal cooperation or even competition by establishing networks and research centres.

The conceptual frameworks of Gibbons and Etzkowitz emphasize the new dynamics of emerging interaction and collaboration between universities/UASs and industry. The models do not elaborate on fundamental differences between traditional universities or universities of applied sciences. Gibbons' focus is very much on contribution to a mode 2 knowledge production system, while Etzkowitz underlines the need and opportunity to become entrepreneurial. The concepts can be read as complementary. The main point is that the linear process of knowledge production no longer tallies with the desire to meet social and industrial needs. Instead of the criticized linear process of innovation in accordance with the 'science discovers, technology applies, and society conforms' way of thinking, it underlines the importance of the dynamics among networks and intermediaries, and the circulation of knowledge.

Problems with the articulation of research therefore are inextricably bound up with a context of 'reflexivity'. Stokes' angles of 'considerations of use' can be interpreted as a relevant specification in the mode 2 model. The quadrants of 'Edison' and 'Pasteur' (understanding the problem and solving the problem) can be related to each other in time (simultaneously or subsequently). In the framework of both mode 2, and Stokes's model ('considerations of use'), applied research is closely related to 'the reason and intention of the research'. If the reason lies in 'knowledge' (knowing for the sake of building knowledge), it is pure basic research. If the reason lies beyond the research itself but is derived from a real-life problem, it is more use oriented. In the latter case, a problem needs knowledge to solve it. Practice can be explained by theory, and theoretical generalizations can be derived from practice. Applied research knowledge and fundamental research are in this sense not different domains, but supplementary layers in a certain sequence. This turns the distinction of fundamental/theoretical research and applied research into a relative one.

The Triple Helix regime involves a focus on speeding up and improvement of innovation by combining markets and scientific orientations. In the 'context of application', the helixes of industry, government, and university interact on an interdisciplinary basis. The characteristics are use orientation, market orientation, and non-linear knowledge production. Research results are no longer just peer-reviewed publications, but also capitalization of knowledge, corroborating the concept of new production of knowledge in 'mode 2', where the context of application is becoming more important (Gibbons et al., 2011), and underlining the importance of relationships between the university and its triple helix environment (Etzkowitz, 2008; Slaughter and Rhoades, 2004). The university then takes an entrepreneurial

role and researchers, lecturers, and the students are important resources. The key factors for the university are intensive cooperation (with outside partners but also inside by intertwining research and teaching), the non-linear production of knowledge, and the entrepreneurial activities of the helixes. These factors concur with the mode 2 regime (context of application, reflexivity) although Etzkowitz does not refer to this mode 2 explicitly. Interesting is his remark that mode 1 is not the traditional system, but that mode 1 in fact emerged in a period when the now underlying mode 2 was less dominant. So, mode 2 might be the historical base.

While Gibbons and Etzkowitz give a conceptual framework for the application of research in context, Jenkins and Healey (2005, 2009) offer a framework for positioning the role of education within these dynamics. The research at UAS can be characterized by means of these quadrants, as research is a competence within the curriculum, and at the same time research has to contribute to solving specific problems within a particular professional practice.

On the whole it can be stated that the mandate on applied research seems to be very much in line with the macro-theoretical frameworks of knowledge production as elaborated by Gibbons and Etzkowitz. The task formulated by the research mandate is an important driver for UASs to redefine their mission on education and research. Research activities become a linchpin in the strategy of the UAS towards a renewed identity, as they produce and apply knowledge for the benefit of markets and their professions, especially in the regions they serve. And therefore 'research is playing an increasingly important role (...) to accommodate the societal demands by linking professional practice and education through innovative research' (De Weert and Soo, 2009:5). These research activities aim to contribute to regional innovation, to improve professional practice, and to strengthen teaching and education. Kyvik and Lepori (2010:5) categorize the main drivers for research growth at UASs as follows: meeting the needs in a knowledge-based economy, boosting regional innovation, focus on small and medium enterprises (SMEs), relevance for professional education, and relevance for professional practice. The development and growth of research activities as a new task depends on factors such as the ambition of the institution, the value that the teaching staff themselves see in the knowledge quest, the agenda of the regional political community, the resistance of the traditional universities, and the policy of state authorities.

5.3. Governmental expectations: focus and mass

From the 1990s onwards, Dutch political discourse has emphasized the importance and strengthening of innovation. The production of knowledge should benefit economic development (valorisation) in order to strengthen economic competitiveness and secure a prominent position for the Netherlands among the leading knowledge-intensive economies. It is believed that the economic competitiveness of the Netherlands and the EU as a whole is stagnating due to a lacking development of competitive products and services. The standard of citizens' well-being and the labour market in European countries is believed to be at stake. The underlying problem is the knowledge paradox. It is believed that there is outstanding knowledge but insufficient yield in economic and societal terms. It is expected that close cooperation, also called 'knowledge circulation', will narrow the knowledge gap between knowledge institutions and in particular small and medium enterprises (SMEs). In this political environment, characteristics of the 'Triple Helix' concept and 'new production of knowledge' are clearly heard.

Noticeable is that this thinking has culminated in setting new policies, especially during 2010-2011. Within a short period of time, an integral agenda was set for a knowledge economy with a perspective on 2025, including the commitments of the involved partners, the governmental mechanisms, the financial instrumentation, and the quality assurance control. It is remarkable how apparently smoothly the stakeholders from industry, government, universities, and UASs embarked on this journey. The headings of the underlying white papers and reports on this commitment are heralds of desired change: 'close to the wind' (AWT, 2011), 'reach the top' (ELI, 2011), 'knowledge needs utilization' (HBO-Raad, 2011), 'quality in diversity' (OC&W, 2011b), and 'to a sustainable future-proof higher education' (OCW, 2010).

Within this context an integrated, complete approach of 'focus and mass' has been developed. Focus refers to building more quality in specific areas, and mass refers to built capacity (and the investments of resources/means needed). Drivers in building this 'focus and mass' agenda are policies from the Ministry of Education and from the Ministry of Economic Affairs.

The policies of the Ministry of Education have very much been instigated by the report 'Three-fold differentiation' (OCW, 2010), which states that the objective of the Netherlands

to attain the top five of the world's most competitive economies can only be realized if higher education undergoes radical changes. Its quality should be significantly increased, and UASs and universities should differentiate more by focusing on distinctive strengths of expertise, which implicitly assumes that focus is a necessary precondition for excellence. Furthermore, recommendations are made about selection before enrolment, stimulating distinct profiles, performance-based grants, focus in applied research, the development of relevant professional masters, and transparency in degree structure.

In 2011, a white paper 'Quality by differentiation' (OC&W, 2011b) was agreed upon by the Ministry of Education, the Ministry of Economic Affairs and Innovation, and the Employers Council of UASs (HBO-Raad). This white paper was the outcome of intensive deliberations within the triangle of industry, education, and government, which were fuelled by several influential green reports from 2009. The current system was no longer considered to be future-proof, and therefore a triple change was required: in the structure of the system (more differentiation in degrees), in the profile of the institutions (more focus), and in the provision of programmes (fewer programmes and more synergy).

Essential points are the urgency of creating distinct profiles and that of quality improvement. Funding focuses less on volume and is increasingly related to performance, based on fixed agreements between individual universities and UASs with the Ministry of Education, Culture and Science. This process should lead to a reduction in the number of programmes at a national level and even per institution as a result of diversification, a matching of the supply towards the demand of the labour market (human capital agenda), more focus in the research agenda, and an increasing impact of research. This policy emphasizes that applied research serves two objectives: an improvement of the quality of education is brought about through the intertwining of education and research, and it is supposed to contribute to the utilization of knowledge and innovation as well as to the interaction between UASs and industry.

These reports widely introduce the concept of 'valorisation', which on one hand refers to making the best use of education and knowledge ('utilization'), and on the other hand also relates to the result of getting the best value. The latter, valorisation in economic terms, seems to be the dominant perspective. Relating to the SME-sector in particular, the expression 'from knowledge to profits' ('van kennis naar kassa') is just as commonly used.

This white paper, a strategic agenda for Higher Education, Research and Science (OC&W, 2011b) shows a strong belief in looking at (higher) education as an important change agent for

solving societal and economic challenges. The main topics for improvement and transformation of education and applied research are addressed as follows (OC&W, 2011b: 10-11):

1. A stricter study climate: raise the bar for students, more intensive education, more selection, and a higher financial contribution from students. The quality of education should prevail over quantity of students;

2. A restructuring of the courses offered, more thematic focus and differentiation in education: education should be better geared to differences in aptitude and talents of students and to the needs of the labour market; reduction of the fragmented range of programmes;

3. Collaboration in the knowledge chain of fundamental research, practice-oriented research, applied research, and innovation; network organizations with collective public–private knowledge accumulation instead of each with their own expertise, thus improving the utilization of research;

4. Profiling of specialization of institutions; strengthening of focus; rewarding quality and focus in the funding of universities and universities of applied sciences.

The third and fourth topics in particular are related to specialization in the research priorities. A strong and essential leverage towards this national focus policy are nine national thematic priorities (ELI, 2011) in which the Netherlands is assumed to be outstanding. The idea is that their strengthening will enforce greater global competitiveness. The ambition is to remain in the top five of world knowledge economies until 2020. To achieve this, national and regional governmental authorities, industry, and universities and research centres should intensify collaboration in knowledge production and innovation in these so-called top sectors.

Every ‘top sector’ is lead by a ‘top team’ consisting of representatives of the triple helix partners (an entrepreneur from SME, a scientist, a governmental representative, an expert in the field), and develops an innovation contract with a roadmap consisting of the fields of interest in terms of fundamental research, applied research, and valorisation (value in mostly economic terms). In addition, a ‘human capital agenda’ is established to ensure a better fit in qualitative and quantitative terms between the provision of programmes and the demand from industry and society. The top sectors and their innovation contracts with human capital agendas are to be linked as much as possible with the challenges of the EU Horizon 2020 (AWT, 2011; ELI, 2011; HBO-Raad, 2011; Naar 4 op de 10, 2012). The basic assumption of

this policy on specialization is that confluence and investment (focus and mass) will improve quality and results.

A special issue of interest alongside the policy of ‘top sectors’, is a priority on ‘beta and technology’. A growing shortage of students who are willing to take programmes in technical studies is a matter of concern, because the economic opportunities are believed to be found in that area. The provision of technical programmes that serve the top sectors should improve, and mechanisms should be developed to attract more students towards technology. From the current 1:10, the desired outcome of this policy is that four out of ten students in HE opt for a technical programme. To achieve these goals, the following measures are proposed: technical programmes should take human interaction and societal contexts into consideration, technology should be more embedded in other sectors (like health, creative industries, hospitality), the number of technical programmes should be reduced through the integration of existing programmes (from 84 to four broad streams of programmes). The desired growth of technically oriented human capital is thought to be realized through the tuning of professional contexts to applied technological innovation. It is assumed that almost every practitioner will become dependent on technical environments to an increasing extent (e.g. in the form of applications, infrastructure, and services).

One of the nine ‘top sectors’ in the technology industry is the ‘Holland High Tech’ sector, to which high tech products and smart materials belong. This sector is an essential motor of economic innovation (50% of the national R&D budget is invested in high tech innovation) and an important human capital provider (workforce of about 390,000). The sector provides products and services with opportunities for application in other ‘top sectors’, and contributes to solving societal challenges (sustainable energy, efficient health care, mobility, safety and security).

To encourage the policy of top sectors and beta technology, alongside the already existing lectorates and additional subsidies, the government has introduced the so called ‘centres of expertise’. They are directly linked to the specific ‘top sectors’, and aim to enforce linkages between research and education and the innovation of SME in the specific region. A centre of expertise is preferably well linked to the region’s roots and characteristics (the industrial activity, the human capital, and other knowledge centres like open innovation centres and universities). The top sectors and the connected centres of expertise are in a way also a movement towards developing smart regions that operate on national and supra-national,

European scale. The desired dynamics of 'Triple Helix' become manifest through mechanisms of co-creation and co-financing (by the state, regional province, regional UASs and universities).

The white paper (OC&W, 2011b) is operationalized by performance agreements with every individual UAS and the Ministry of Education. During 2012, every UAS had to offer propositions concerning the four priorities mentioned on how to improve quality and profile (Saxion, 2012a).

Of the total budget for UASs, 7% was targeted (out of each UAS's own pocket), of which 5% as conditional on the fulfilment of the first and second priorities (quality and provision), and 2% selectively for the third and fourth priorities (research and valorisation). Thus 5% was given with the condition that they were held accountable while the other 2% was a financial incentive. A centre of expertise was conferred upon half of the Dutch UASs and thus received financial support. Saxion was provided with two centres in the HTSM top sector (one focusing on High Tech and Smart Materials, the other one on stimulating students to opt for technology-oriented programmes).

5.4. Contested expectations

The governmental macro context can by characterized by high expectations of UASs, leveraged by the mandate of practice-oriented research, the desired focus and mass, and the differentiation between UASs; the contribution of education to a knowledge economy with distinct economic profiles (top sectors); and an integrated approach by several governmental layers (education and economic affairs) and their stakeholders (industrial partners, specifically SME, and higher education institutes). The UAS sector is seen as a promising contributor to economic and societal prosperity, spurred by notions of utilization of training and research, relevance-driven education and research, and valorisation-driven outcomes.

The pressure from governmental agents' expectations about the desired role and contribution of HEI, and UASs in particular, to a knowledge society for the benefit of the economy and social issues, engendered a sizeable massive commitment on the part of the stakeholders. But this significant development is also disputed by several voices. I will touch upon three critical

perspectives: the assumption that education and research should be a problem solver for industry and society, the belief that science (beta) and economy-driven disciplines play a dominant role to the detriment of humanities-oriented programmes, and an increasing agenda-setting of corporate branding that endangers the autonomy of value-free academia.

Firstly, the supposed role of higher education institutions an engine for economic growth is criticized by voices from critical management studies (Alvesson and Sveningsson, 2008; Alvesson and Willmott, 2012; Alvesson, 2013; Alvesson, Gabriel and Paulsen, 2017): 'There is a wealth of evangelic beliefs in higher education as a way of increasing economic growth, making the population intelligent, and solving all kind of problems' (Alvesson, 2013:74). Alvesson calls it 'educational fundamentalism': an ideology, naïve blind faith, heavily imbued with grandiosity, and false assumptions by a factory-like mass university. It leads to window dressing, and make-believe that problems can be solved and managed in short time, denying complexity. Instead of this 'triumph of emptiness' with grandiose self-personification, imitating others, and exaggerated promises, their plea is about self-confidence, taking the time to think, critical reflection, and reasoning.

Secondly, others, mainly from arts and humanities disciplines, criticize the mechanisms of pressure and steering with neoliberal characteristics of market-driven education and research. They question whether the provision of education and research always has to obey the economic rules of demand from industry and society, a concern raised by some spokesmen of humanities (Collini, 2012; Nussbaum, 2010; Verbrugge and Van Baardewijk, 2014). While technocratic approaches have existed for a millennium (Weber, Taylor), it seems as if these principles have again become influential mechanisms in steering, as if education and research can be 'produced' by a university as a sort of as factory, within manufacturing systems and generating short-term benefits. Trust in professionals is replaced by 'organized mistrust' and an increasing number of control mechanisms are constantly measuring quality (Verbrugge and Van Baardewijk, 2014:85), e.g. in the form of performance indicators, strict planning & control mechanisms, earmarking means, and agenda-setting in expected outcomes by external stakeholders, the outcomes of which predominantly focus on human capital and economic growth, and therefore pressure the value of programmes that are not directly related to economy, like the humanities.

Thirdly, there are those who point to the danger of losing value-free research, and eroding freedom of research, freedom to teach and learn, and the autonomy of academia to set its own

agenda based on its own curiosity instead of complying with external agenda-setting and earmarked finances. From a relatively loosely coupled academia, HE-organizations are becoming corporations with directing strategies, where the researcher and lecturer are seen as employees performing in line with set goals and expected results. It seems that the more organizations depend on governmental influence and finances, the more they comply with governmental pressure and agenda penetration (he who pays the piper calls the tune).

In spite of these critical voices, the fact is that, under the influence of NPM-approaches, a market and consumer orientation has become manifest for government-subsidized institutions. There is less steering by means of direct state control (lump sum), but more steering in terms of specific output measures (performance agreements), and HE-institutions are subject of public accountability and scrutiny by a wide network of stakeholders and communities. This accountability is controlled by means of formal quality control by the stakeholders (like government) as well as informally through public scrutiny (e.g. by the media). HE-organizations have become agents in an open branding agenda with business and industry-based league tables and performance criteria (Naidoo et al., 2011). This asks for explicit image and reputation management in order to build and manage the desired images. Prerequisites for a successful brand are believed to be strong strategic agendas and a clear vision with a purposeful longer-term strategy (Chapleo, 2010:179)

5.5. Conclusions

The landscape of HEI, in particular with regard to UASs, can by typified as one of increasing influence, pressure, and interdependence of macro-contextual governmental policies, and the meso adaption of these policies by the individual universities (Hazelkorn, 2005). This requires an attitude from universities that can be described as sensitive, adoptive, responsive, and entrepreneurial (Clark, 1998, 2001, 2004).

The national agenda on quality and valorisation/utilization of teaching and research puts pressure on UASs to present themselves, to take share in the national priorities, to show this contribution , and to compete or differentiate within the sector. This stakeholders' approach calls for a specific focus on teaching and research. This means that the macro environmental factors have imposed the urgency of setting an institutional strategy, at the micro level, for the

coming period. Accountability, dependency on the public stakeholders, and reputation will become more critical in an environment of growing competition. League tables with rankings showing student satisfaction, employee satisfaction, codes of conducts, and explicit public transparency about outcomes and results, e.g. concerning performance agreements, will at the same time trigger and monitor this.

The societal and economic expectations on applied research in this sense are in line with the mode 2 model, although in governmental policy reports hardly any explicit references are made to models of knowledge production except mentioning the supposed knowledge paradox (the believed distance between innovative knowledge and the use of knowledge). Assumed is that this knowledge paradox can be bridged by knowledge production within the context of application with use orientation and interactive engagement of the Triple Helix sectors (government, industry, university). The formal mandate on applied research, explicitly organized by the lectorates, for UASs is believed to be an important leverage for improving quality and innovation.

UASs are seen in their role and capacity as suppliers of human capital for national and regional benefits, change agents for societal and economic challenges, and problem solvers for (regional) industrial needs. Keywords of this neoliberal approach are utilization, relevance, valorisation, and steering towards (preferably measurable) output. The New Public Management approach aligns with less direct state control on a micro management level, but more control of output by means of lump-sum financing and performance agreements.

The headings and keywords of the underlying Dutch policy reports are heralds of this desired change of universities in their role of producers of relevant knowledge: ‘knowledge matters’, ‘knowledge needs utilization’, ‘from knowledge to profits’. The overall underlying assumption seems to be that focus (priorities in distinct profiles) and mass (adequate capacity) will improve the quality and impact of results for economic and societal benefits. UASs, with their identity of practice-oriented teaching and research with a focus on the ‘context of application’, contribute to these expectations by bringing together the preparation of future professionals and the improvement and renewal of professional practices.

Such reasoning about the role of UASs reflects concepts of knowledge production (mode 2, triple helix, neoliberal new public management, entrepreneurial university). In a relatively short period, explicit accountability mechanisms of intended and planned pressure, demands and expectations, have penetrated policies of HE-institutions. These increasing

interdependencies between the university and its environment of several stakeholders (e.g. governmental layers, industry, communities, students) can be typified as evolving to a 'stakeholder society' in which the university is publicly accountable (Jongbloed, Enders and Salerno, 2008). This will affect the way organizational control deals with growing environmental influences. Bleikie, Enders and Lepori (2015) introduce the label 'penetrated hierarchies' to research how professional organizations choose, balance, and act between centralization of power (e.g. bureaucracy) and social relationships (e.g. autonomy and participation of professionals).

Branching out from this typification of the macro scene with contextual expectations of stakeholders, we will research the case of Saxion as a storytelling organization making sense of its profiling strategies.

6. Meso context of Saxion case

The macro context of Dutch Higher Education, as described in Chapter 5, shows that HE is strongly influenced by political and industrial stakeholders. The contextual agenda is characterized by mandates, regulations, and financial schemes. Market-orientedness, use-inspired contribution to economic and societal value, and relevant knowledge production have become key terms. HE, and UASs in particular, are expected to play their role in this and be accountable. They are regarded as providers of human capital and contributors of knowledge that is relevant to society and the economy. The national policy shows an increasing dependency between education on the one hand, and economic and social challenges and stakeholders on the other. Several quality control systems are in place to manage the interaction, monitoring, and assessment that are required by the agenda. An important feature of the national contextual environment is the government-instigated necessity of focus and mass, which calls for more differentiation in HE. This should be achieved by making universities choose distinct profiles, preferably those that comply with the technology-oriented top sector policy. In line with this policy, performance agreements were concluded with universities for the period 2012-2016.

This chapter outlines and analyses how Saxion gives shape to the thematic focus desired by the government. Section 6.1 briefly characterizes the planning & control cycle by means of which strategies are developed. The manner in which Saxion's policy documents shaped the thematic focus of Living Technology, both at an institutional level and at the level of the two chosen decentralized schools, is outlined in Section 6.2. This is done by coding the key notions in the policy documents in order to derive, in 6.3, the thematic codes that were used as points of reference for interviewing participants from the chosen segments (Chapter 7). Sections 6.4 and 6.5 reflect on the organization and its policymaking.

6.1. Policymaking and the planning & control cycle

Saxion profiles itself as a comprehensive UAS serving the eastern region of the Netherlands from three locations in two provinces (and subregions) (Saxion, 2012). About 27,000 students participate in about 52 undergraduate programmes (with a professional focus on teaching and training) and graduate programmes. The fields of these programmes are related to business administration, technology, social studies, health and care, and education. The programmes are clustered in 12 so-called schools (see Appendix 2 for key figures).

The directors of the schools are fully accountable, and therefore key agents in the policies and the performance of the schools (e.g. finance, personnel, quality of education and research). They are members of Saxion's central board of directors and expected to contribute to and comply with institutional strategies and policies. Most of the supporting processes (such as finance, marketing, human resources, quality assurance, student registration, and scheduling) are centrally organized but executed as much as possible at the decentralized level of the schools. This implies that directors are both commissioners and customers of these services, which are arranged by service-level agreements and account management.

The directors hold full-time management positions for an indefinite period, without having any formal education or research tasks. Most of them used to work in the educational field as lecturer/researcher. Besides having the direct responsibility for their own units, they are expected to share in the responsibility for the general policy of the whole organization, by chairing a corporate portfolio (e.g. that of research, finance, HR, marketing, services, or education) and are thus responsible for the policymaking thereof. Besides the regular organization structure, there are Saxion-wide projects for which a director is usually responsible in the role of the commissioning party.

The structure of Saxion's organization is that of a line-and-staff organization: a two-layered mandate system designed to define clear roles and responsibilities in terms of the RACI-model (Responsible, Accountable, Consulted, Informed). This is reflected by the formal consultation structure: twice-weekly meetings of the executive board and all directors, a monthly meeting with each director and a member of the executive board, and a monitoring planning & control cycle that takes place three times a year. The organization and consultation structure shows that the directors of academies and staff services have a central

stakeholding role with regard to the policy cycle within which the Board of Directors operates.

Central in the policy cycle is the instrument of the planning & control cycle. This is explicitly a steering instrument, describing the policy, aims, and desired results, and stipulating the periodic monitoring of progress in qualitative and quantitative terms. In line with the strategic policies, it contains a format specifying indicators for goals and results, e.g. employee satisfaction, student satisfaction, study success, quality assessment (accreditation), finance, professional development, and Living Technology. With this, the institutional policy is the starting point for the decentralized policy cycle at the level of the individual schools. Next, the school implements the institutional policy at the micro level of teams and programmes, and manages any consequences on the individual level (interview cycle). This is a cyclic process of steering and accountability.

The analysed texts are taken from annual policy reports (annual plans and reviews – components of the planning & control cycle) at the level of the schools. The way in which these were interpreted and translated onto the micro level of teams and programmes, and the intermediate reports, lies beyond the scope of the analysis.

6.2. Stories of Living Technology in policy texts

The ways in which the policy documents made sense of the thematic profiling during the period 2012–2016 are the reference points that served as the starting point for the conversations with the interviewees in 2016. The analysis of the texts does not specifically focus on the development of LT connotations as a process in chronological order, but on the total outcome of this process, in order to gain an understanding of the LT strategy in the 'window' 12–16. A synopsis and the initial codes derived from these texts are presented here, interpreting the sensemaking of 'Living Technology' through intensive close reading, looking for interpretations, terminology, statements, definitions, and examples regarding the Living Technology profiling.

6.2.1 A synopsis of Saxion's institutional policy texts

Saxion's institutional policies are mainly laid down in three core documents:

- Saxion Strategic Agenda 2012-2016: Vision, Focus, Action (2012)
- Saxion Performance Agreement between Saxion and the Ministry of Education, Culture & Sciences (2012)
- Saxion Living Technology Research Agenda (2015)

Saxion Strategic Agenda 2012-2016 (SAS12-16)

The SAS 12-16 explicitly draws a parallel between external expectations, the ambition of a University of Applied Sciences, and the thematic focus: 'We translate our ambitions from our Vision for the Future 2020 into results that also constitute the basis for performance agreements with the Ministry of Education, Culture and Science (OC&W). This agenda builds on the Strategic Vision 2008-2012 and links up with the Strategic Agenda for Higher Education, Research and Science (OC&W July 2011), the Quality Agreement between OCW and the Council for Professional Higher Education (December 2011), and the letter of the State Secretary of OCW on performance agreements (December 2011). Saxion will clearly stress its distinctive features as a University of Applied Sciences with Innovative Technology as its focus and High-Tech Systems and Materials as a substantive focal point' (SAS12-16:1).

The (desired) identity demonstrates that Saxion seeks to link up with the Dutch macro policies by prioritizing the key features of innovating professional practices, triple helix networking, and contributing to regional human capital: 'Saxion is an internationally-oriented knowledge institute that belongs to the top institutes in the Netherlands. Saxion creates innovative practice-oriented knowledge with students and teacher-researchers as co-creators in partnership with companies and institutes. In this way, Saxion contributes to a strong regional development' (SAS12-16:2). The relevance of practice-oriented knowledge is explicitly underlined: 'As a University of Applied Sciences (UAS), Saxion is an educational institute that offers ample scope for practice-oriented research that meets scientific criteria. We make use of science (with its various disciplines) as a knowledge source to contribute (with applied

science) to relevant economic and social issues. In contrast with theoretical research (knowing for the sake of knowing), practice-oriented research puts the applicability of knowledge first. As a UAS, Saxion acts as a central hub between education, research, government and the business community (regionally, nationally, in a European context and globally). This position enables Saxion to create new knowledge and act as a bridge between available knowledge elsewhere in the world and the knowledge required in Saxion's own region' (SAS12-16:8).

The thematic focus of innovative technology is specified by means of an HTSM specialization: 'We opt for a substantive focal point on the knowledge domain of High Tech Systems & Materials (HTSM). By HTSM we refer to innovations aimed at (physical) systems and materials according to the latest technological insights, in combinations of mechatronics, nanotechnology and materials. This involves the interactive, visible application of current, technical knowledge in a physical environment. The substantive focal point constitutes the top within Saxion's research programming. Technology is the connecting link and reinforces solutions to issues for people and their environment. Research is aimed at the design, development, application, embedding and supervision of technology. Knowledge development and valorisation are the connecting link, whereby technological solutions for social themes are central' (SAS12-16:7).

The choice for HTSM is regarded as 'a logical consequence of the fact that technology and the manufacturing industry are rooted in Twente and in the urban triangle. They stood at the base of Saxion. Twente, in particular, accommodates scores of small and large high-tech companies and a robust materials industry. These companies have an urgent need for higher-educated technology professionals. The HTSM agenda is therefore also a Human Capital Agenda. Saxion fulfils a leading role from the Twente region and sets an example in the national Human Capital Agenda for the Top Sector HTSM' (SAS12-16:8). 'With HTSM as a focal point in research, Saxion contributes to this by giving substance to the HTSM profile of the east of the Netherlands, provincial innovation policy and national corporate policy in the areas of the Top Sectors and Human Capital. Saxion also renders a contribution to the Europe 2010 objectives and the Horizon 2010 investment themes' (SAS12-16:8).

With its choice for HTSM, Saxion strives to achieve focus, and with that, more quality. This not only involves incorporating HTSM technologies in the technology programmes, it also includes the application of innovative technology in non-technical programmes and

professions: ‘Within our focal point of HTSM we opt for specialisation thus enabling excellence. We have chosen three enabling technologies: nanotechnology, mechatronics and smart materials. These technologies are linked to an area of application, for example nanotechnology in healthcare or (smart) materials for functionalising textiles. The focus lies on excellence in technology and creating a platform to apply the technology in social themes. Because HTSM goes beyond technology alone, it also has a social and economic significance. Saxion acknowledges that technology plays an increasing role in areas of activity that traditionally were non-technological. This calls for a more frequent and more intensive embedding of technology in programmes aimed at these areas of activity. For example, the teacher who specialises in science and technology, the nurse who, in providing care, is assisted by tele-services, the constructional engineer who uses domotics solutions in buildings, and the psychologist who studies the effects of technology on human beings. Programmes that have aspects in common with HTSM will be supplemented. In short, the contribution of economic and other programmes made to entrepreneurship, business activity, creation of value and (new) technologies and applications’ (SAS12-16:8).

In order to realize the desired focus in education and research, additional investments are made in two knowledge centres for innovative technology: one for smart industries and the other for technology education. ‘Based on its national innovation agenda and Human Capital Agendas, Saxion has taken the initiative to build a Centre of HTSM Expertise at the interface of research and education. Thus, we will create, in collaboration with Hogeschool Windesheim, an accessible research and education environment for research in which several open innovation centres in the east of the Netherlands are bundled. In order to have sufficient technicians to fulfil this ambition in the longer term, Saxion, together with Hogeschool Edith Stein and the University of Twente, invests in research into the optimal utilisation of talent in the field of the exact sciences. The collaborating primary education teacher-training colleges, the teacher-training institutes and technology programmes will develop a Centre of Expertise in the area of technology education’ (SAS12-16:8-9).

The thematic focus on HTSM/innovative technology has an impact on the research programmes of the lectorates. Practice-oriented research is seen as a condition for current and innovative higher professional education. The choice for HTSM leads to more focus in the programming of the research. Saxion’s research agenda is based on the following starting points (SAS12-16:13):

• Relevance and usefulness for the field and society;

• Good match with the substantive focal point, the HTSM profile, within the context of Innovative Technology;

• Good link-up with the courses in our Bachelor and Master programmes;

• Enhancement of the available knowledge in the professional practice.

'With innovative technology, Saxion also wants to contribute to the need for more technicians: 'More technicians!' is a clear statement from entrepreneurs in the (east of the) Netherlands, that we take seriously. This is also supported in the advice from the Sectoral Exploratory Commission Higher Professional Education-Technology, the Human Capital Agendas of the Top Sectors of the Ministry of Economic Affairs, Agriculture and Innovation and the Master Plan Beta and Technology. A powerful impulse is necessary to train technically-inclined employees. If HTSM is to have an opportunity of growth as a substantive focal point, then we need people with technical training and/or an affinity with technology. Besides a rising substitution demand there are also new technological developments that call for more professionals with current technical understanding. This demand can be fulfilled by means of technical training programmes, but also by means of interface training programmes and components of technical training in other programmes. In order to have sufficient numbers of technically-oriented employees in the future, Saxion has taken the initiative for a Centre of Expertise Technology programme.' (SAS12-16:14). 'Technology as 'local colour' is the legitimacy for the claim we make on the HTSM Top Sector. We enhance the substantive focal point of High-Tech Systems and Materials (HTSM) by combining expertise, capacity and facilities. In many sectors technology takes up a central place and is becoming increasingly complex' (SAS12-16:15).

Overall, Saxion wishes to invest in a new generation of innovative, technology-oriented professionals who are to be educated in an innovative and socially involved way. Results mentioned are:

- More and more final projects make a contribution to the implementation of the research agenda;
- Research programmes are a good match with the substantive focal point of HTSM within the context of Innovative Technology;

- For a learning environment in which technical talent thrives, the building blocks are developed from the entire regional education system in the Centre of Expertise Technology Training;
- Technological innovation is realized via the Centre of Expertise HTSM in cooperation with companies, institutes, and government bodies;
- Entrepreneurship is part of the curriculum of every programme; the number of jobs from Saxion spin-offs and fast-growing companies (by students), especially in the region, increases;
- In accordance with the advice of the Netherlands Association of Universities of Applied Sciences Performance, indicators in the field of research will be developed, in collaboration with other (national and international) universities of applied sciences. (SAS12-16:16-17)

Saxion Performance Agreement (PA12-16)

The Strategic Agenda 12-16 was drawn up on the basis of a compulsory Performance Agreement concluded between Saxion and the Ministry of Education, Culture and Sciences (Performance Agreement, 2012). The agreement covers the conditional funding towards the quality of education and study success (max. 5% of governmental subsidy) and gives several indicators: success rates, dropouts, switches, bachelor rates, student satisfaction, faculty education grade quality, and contact hours in the first year. The selective funding (max. 2% of governmental subsidy) concerns the degree of focus. In this, Saxion describes goals with regard to Saxion as a UAS. Indicators mentioned are three-year tracks for pre-university education, graduate programme, honours programme, Bologna-proof programmes, international networks, entrepreneurship, final assignments and the research agenda, research skills as a learning pathway, and Saxion Academia Vitae as University College. Objectives of the thematic focus on High Tech & Smart Materials are specified with such indicators as technological innovation by HTSM Centre of Expertise and Science Education Centre of Expertise, learning environment for technical talent, and linkage between thematic focus and research programmes.

Saxion Living Technology Research Agenda (SRA-LT)

During 2014, several professors from various lectorates and professional fields were asked by the Executive Board for a rationalization of the vision and definition of Living Technology. In this Saxion Living Technology Research Agenda, they state (Saxion, 2015:10):

'We encounter Living Technology whenever there is interaction of technology and society, and this interaction provides new impulses on both sides. Not just the interaction itself is important, but also the impact of technology on society and how both technology and society develop over time. Our focus on Living Technology encourages us to reflect constantly on how technology and innovations contribute to our quality of life and the way we shape our environment. For this reason, we have formulated a concise mission statement to go with the above definition:

Our definition: Living Technology refers to the interaction of technology and society.

Our mission: Through Living Technology, we want to make an innovative contribution to the development and application of technology for the improvement of quality of life.

This definition and mission statement form the benchmark for our ambitions and help us shape the research carried out at Saxion. In order for research to be identified as 'Living Technology' research, it has to meet two essential conditions: it has to be socially relevant and deal with innovative technology.

• Socially relevant and demand-driven

We create innovative technology and technological applications that have demonstrable social relevance and correspond to individual, social and ecological values. When articulating demand, it is important that we involve a wide range of stakeholders from the field in order to achieve an optimal synergy between research questions and social issues.

• Innovative technology

We define 'innovative technology' as both new and existing technology that is applied in an innovative manner. At Saxion, new technology is primarily found in the HTSM fields of nanotechnology, mechatronics, smart materials and ICT. Additionally, we make use of innovative technology in the fields of Health & Wellbeing and Areas & Living'.

The research agenda is subsequently described in three programmes:

- Areas & Living

  Concerns living and working in smart cities. At the centre are intelligence in living together, and the relationship with sustainable use of water, energy and other resources. Their research focuses on BuildTech, CleanTech and MediaTech.

- Health & Wellbeing

  Focuses on vitality and self-management. A major goal is to allow people to remain socially and economically active for as long as possible. Technology can play an important role in this, for instance in the form of quicker and less complex diagnostics and preventive screening, the monitoring of health, and through minimally-invasive treatment methods. In addition, technology supports the daily activities of people with disabilities.

- Smart Industry

  Research in the field of High Tech Systems & Materials, including nanotechnology, mechatronics, smart materials and ambient ICT. Furthermore, knowledge is developed in the fields of design, recycling, modern media and production techniques.

Initial codes derived from the institutional documents

From these three institutional documents (Strategic Agenda, Performance Agreement, Living Technology Research Agenda), the following thematic codes are derived:

- External legitimation for the thematic focus (governmental white papers; performance agreement)

- Contributing to regional development: triple helix partnerships, entrepreneurship, human capital (more technicians)

- Ambition of becoming a ‘real’ UAS; applying knowledge, improving research skills

- A substantive focus on innovative technology, High Tech & Smart Materials (HTSM)

- Focus of the research agenda on technology for smart industry, for Health & Wellbeing, for Areas & Living
- Lectorates, and two centres of expertise as enablers of the research agenda
- Improving the quality of staff (graduate/PhD)
- (Interdisciplinary) integration of research and education
- Practice-oriented research (relevance, usefulness)
- Embedding technology in all programmes and fields

6.2.2. A synopsis of the decentralized policy texts of the School of Life Science, Engineering & Design (LED)

Synopsis

In 2012, a start was made with the development of new education programmes 'LED2.0 HTSM/Living Technology' (LED12R:4), to ensure that, from 2013 onwards, all programmes contained a 30 ECTS research semester on projects that match the research mandates of the lectorates (LED12R:16).

In order to make the new education programme possible, room needs to made in their curricula for multidisciplinary research. The aim is that students, teachers, researchers, lecturers, companies, and other partners enthusiastically collaborate to solve issues that are important for the region. Up to now, the lectorates have submitted five multidisciplinary projects that have been approved by the so-called Programme Council of the semester. Since 2013, the research projects organized by the lectorates continuously involve about 30 students (LED13P:14).

Technology is a unique opportunity for LED, with the potential for unleashing much positive energy. The first experiences have been good. Teachers and students are enthusiastic. By this point, all LED-lecturers are involved. LT projects are ongoing in all the study programmes, with a transition year for students from Mechanical Engineering, Industrial Product

Development, Engineering Physics, and Computer Science. As of 2014/2015, the Living Technology Project Semester (LTPS) has become compulsory for all year-groups. In the course-year 2014/15, there were 132 newly enrolled students involved in over 44 projects. The LTPS is regarded as a good opportunity to involve exchange students. From 2014, rooms have been structurally assigned to LT projects, (LED14R:3,28). The ways in which the research lines are elaborated is partly based on the expertise of the concerned teacher(s), as participation in the research groups allows them to provide and build on their expertise through their work on the actual research topics. (LED14R:34). As regards LED15P, the LT research semester aims to make a significant contribution to the further development and implementation of the Living Technology School (as the project semester is called), within the framework of LED 2.0.

The research projects are suggested by the work field, with a directing role for the lectorates. The objective is to incorporate research and development in education, and realize multi-disciplinary collaboration in crossover areas (LED15P:4,25). The lectorates increasingly strengthen the notion of the Living Technology focus, with an emphasis on 'application', thus bolstering Saxion's relation to the HTSM top sector network. The high tech materials roadmap plays an important role in this too (LED15P:32). In 2015, the lectorate was to explore projects that are further removed from technology, allowing the students to become acquainted with a broader context than just the technological one (LED15P:43). The Living Technology Project Semester has made LED more attractive to exchange students and guest lecturers (LED15P:20). LED15R:5 again recalls that Living Technology constitutes a unique opportunity for LED, one that unleashes substantial positive energy and has led to positive experiences. Also reiterated here is that all LED lecturers are by now involved. Furthermore, the approach receives wide support and has proven itself as a testing ground for the developments that have been initiated in the TROTS trajectory (Transdisciplinary Structure for Education and Research involving several technology-oriented academies). As of 2015, the LTPS is a compulsory component of all LED-programmes and year groups. As the numbers are growing, facilitation in adequate project rooms is becoming a permanent issue. It is also found that much education is related to the research lines of the lectorates. The research ability of students, however, is not always made sufficiently apparent (LEDR15:5). In 2015 the LTPS, the development of curricula that allow room for multidisciplinary research (LT projects), has been further expanded. The experiences made are positive, LT projects are ongoing in all courses, and student numbers continue to grow (in course year

14/15 to 352 students, divided over 88 projects). Preparations are under way for participation in the European Project Semester, an impulse for participation of foreign students in the LTPS, and for Saxion's participation in foreign projects (LEDR15:24).

With reference to the corporate Saxion LT Programme Council (Saxion, 2015), the core of Living Technology is the interaction of technology and society. In this sense, all projects of the living technology lectorates follow the roadmaps of Smart Industry, Health & Wellbeing, and Areas & Living (LEDR15:38). To illustrate this, the R5Cop project is mentioned, which revolves around care robots and flexible industrial robots; these robots work with and for the benefit of people. Or in nanophysics, there are interfaces with health, environmental issues, and food safety. The availability of rooms for students working on LT projects is increasingly found to be at a bottleneck (LEDR15:63).

LED16P targets the continuation of the LTPS policy. Teachers who do not work within the lectorates are being involved in issues that emerge from the projects (LED16P:42). The accommodation issue is expected to be tackled within the short term, just like the start of a new Fablab. Furthermore, agreements are being made on third- and fourth-year multidisciplinary LT-projects in cooperation with other schools (LED16P:60).

LED16R characterizes LTPS as best practice within Saxion in the field of interdisciplinary activities. Besides the fact that participation is compulsory for all LED students, students from other schools/academies (BBT and ACT) also take part in the LTPS (LED16R:6). The project portfolio shows strong growth. The introduction of LTPS and the active roles that lecturers have in it, have strengthened its link with education. By now, the research activities also percolate through to the first and second years of Bachelor programmes, e.g. in the form of LT-projects 'light' (LED16R:6). The Living Technology Project Semester is a success, even if it requires a considerable time-investment of the involved parties (LED16R:7). All programmes are linked to at least one lectorate (of a total of eight lectorates). Staff working in the lectorates function as customers and content experts in the LT projects (LED16R:11). Besides the fact that it teaches students how to work in an interdisciplinary setting, LTPS requires that students take explicit responsibility for assuming an active role within the project, and for their workloads. Students are invited to step out of their comfort zones. With this, LTPS is an example of motivational education, as envisaged by teachers and LED programmes. The challenge for some of the LTSP tutors lies in giving their students freer reign, and leaving the responsibility for successful participation with them. (LED16R:12).

Initial codes LED

From the policy documents LED the following initial codes are derived:

- Project semester terminology: HTSM/Living Technology, Living Technology School, Living Technology Project Semester

- Research semester/project semester is the environment in which education and HTSM/LT-research from lectorates are connected

- Regional orientation: research projects commissioned by and carried out in cooperation with external partners

- Evaluation of the projects shows increasing enthusiasm and participation of lecturers and students

- Research projects ask for more explicit development of research skills

- LT-projects evolve from mono-disciplinary (course related) towards multidisciplinary (between programmes) projects, and involve other (less technology-oriented) programmes.

- Growing need for facilities and equipment

A synopsis of the decentralized policy texts of the School of Social Work (SW)

Synopsis

The lectorates have to become more involved in education by playing an important role in the development of the content of the curricula, and stimulating students and staff to participate in applied research projects. In short, the lectorates should descend into the School, and the separate GW&T knowledge centre should be dismantled (SWR12:9). The renewed Technology in Health & Care (THC) lectorate is important within the framework of the Living Technology focus (SWR13:4) as it carries the assignment to make technology visible within the education offered (SWR13:16). SWP14 emphasizes that the (new) lector should

inspire colleagues and students of the school for this theme. Living Technology must be incorporated into the curriculum more prominently than is presently the case . And within the lectorate, colleagues need to put in a greater contribution, and more (PhD) research needs to be done into technological applications within the Health & Care sector. It should become 'normal' for our students and teachers to discuss technology and keep up with the latest technological applications within our field. (SWP14:6). The focus will continue to be on the home environment of the client or citizen, as well as on the possibilities that technology has to offer. The objective in this is for the clients to remain in or regain control of how they organize their lives, in spite of the limitations or problems they experience. Technology can help the client by creating a safe environment in which their behaviour is monitored and problems that endanger their safety are detected and signalled. Technology can help clients to establish and maintain contact with others in their environment or neighbourhood, or with caregiver and healthcare professionals. Technology can support members of the public, and offer them the possibility to do their jobs more effectively and more efficiently, e.g. by enabling cooperation in chains and networks by means of information exchange (SWP14:15)

SWR14:27 describes the lectorate's mission as 'conducting application-oriented research in the field of the social aspects of technology, in which human beings are at the core (a user-centred perspective).' The research should target the design of technology for people, the use of technology by people, and the effects of technology on people, within the context of care and well-being. Furthermore, the research should focus on all levels at which people work with and experience technology: individual, organizational, and social. Within the lectorate, three lines of research can be distinguished.

- Health: research on individual and organizational level into the design, use, and effects of technology in a care context, in particular e-health, telemedicine and medical technology

- Welfare: research on individual and organizational level in the design, use, and effects of technology in a welfare context, specifically social technology, online counselling, and the computerization of welfare institutions

- Communication: research on individual and organizational level into the design, use, and effects of information and communication technologies, in particular that of ambient intelligence, mobile communication, social robotics, and wearable computing.

Examples of contributions to the professional field are the EU-project ‘social networks for older adults to promote an active life’ and better accessible addiction care via internet and mobile applications (SWR14:27)

SW15P states that the lectorates occupy a central position within the School; they participate actively in the development of new education (SW15P:3). The schools subscribe to the course towards a UAS. The school’s research environment is very positively influenced by the many employees that are doing a Master’s or PhD trajectory. In addition, the link to the lectorates has become much more consolidated, not only physically, but also for instance in its relation to the curriculum commission (SW15P:4). Teachers have been engaged to participate in several pieces of doctorate and other research in the role of tutors for student assignments. Thus, not only the students but also the teachers are directly involved in the subjects (SW15P:23).

SWR15 finds that although the acceptation of Living Technology has its challenges, the lecturer’s personal approach and that of her research group are convincing. Nevertheless, it has been observed that the concept of Living Technology is not that well understood by very many teachers in SW. The aim is to organize master classes for students, teachers and other employees in 2016, in order to increase the dissemination of knowledge (SW15:29).

In 2015, an LT-elective was developed for the HC&SW Master. This elective has been very successful and serves as the starting point for the development of a Living Technology study route linked to this master (SWR15:16). Mentioned as examples of technology applications are the so-called Digital Compass, a method for youngsters who want to become independent and who receive coaching to this end by a youth care organization. And a start has been made with a new line of research into cyber bullying. Besides these two lines of research, we strive to increase the use of social technologies – apps, predominantly – to support professionals in their daily practice (SWR15:16).

SWP16 states that the implementation of LT in education and research is becoming more visible. For example, more attention is given to the digitization of the social domain, whereas this topic was previously lacking in the curriculum (SWP16:18).

SWR16 reports that 2015 saw the first SW year group in which there was a clear focus on LT. In 2016, the newly developed second year of SW started, in which LT assignments were integrated, for instance, in the problem-based-learning topics and first-year or practice

learning tasks. LT has now been given the position it deserves in the first and second course years (phase 1) of SW, and is also incorporated in modules — for instance in the form of attention to digital communication within such methods as solution-oriented practices and motivational interviewing. It furthermore plays a prominent role in such workshops as Social Media, E-coaching, and Social Technology. At present, the second phase (course years 3 and 4) is being overhauled, with the aim to stimulate more enthusiastic teachers to jointly work on the further integration of LT. Positive signals have been reported from an increasing number of students and lecturers who independently took up LT assignments, and those signals are encouraging. It still takes time and effort to generate enthusiasm for LT from students and teachers, but it can be stated cautiously that there is a clearer, broader, and more positive attitude towards the LT theme within SW (SWR16:13).

In 2016 permission was granted to start a Technology & Innovation study group within the master HC&SW (SWR16:13). The THC lectorate's mission remains to address specific issues that play a role in the processes of adoption and acceptation of new technologies within the domain, in close collaboration with partners from the professional practice.

The lectorate wants to actively contribute to increasing the awareness of students, teachers, and health and care professionals of the importance and potential of LT (SWR16:17). Projects in this are cyber bullying, digital compass, a mobile platform that supports client interviews of youth workers, need-analysis of hospice domotics, a mobile application that supports 'kitchen table talks', WMO (social support act), and tech for refugees (the use of technologies by refugees. Promotion projects are healthy ageing using technology, blended smoking-cessation treatment, risks in the use of care technology in the home, cognitive bias modification in web-based treatment for alcohol addiction, and the influence of wearable technology in the social domain (SWR16:17,23).

Initial codes SW

From the policy documents SW the following initial codes are derived:

- Examples of LT are technologies (devices, digitalization with ICT) that improve the quality of life in health and welfare contexts

- A research focus on health, welfare & communication

- A research focus on the subjects of technology for people, the use of technology by people, and the effects of technology on people in a care and welfare context

-The THC lectorate is seen as a driving force for implementing LT in education and research in SW

- 10% of the curriculum has to be linked to LT

- LT has a user-centred perspective

- Adoption and acceptation of LT is challenging

- Research projects with partners from professional fields.

6.3. Reference framework from policy texts

The process of strategy making in the documents show a development of the concept of LT that can be read as a desired renewed identity. The formal texts (at the corporate and departmental level) reveal the establishment of a strategy 12-16 from which four themes can be derived: legitimacy of the strategy, the critical conditions for realization, the thematic profiling on Living Technology, and the impact on research and teaching. As the strategy is about a desired identity and includes an ambition (assumptions, propositions, promises), the codes are formulated here using transitive verbs in the active form, which shows activity in terms of the intended change, and gives them the form of statements or propositions.

Legitimacy of the strategy

Strategy is encouraged by governmental white papers

Strategy is part of the performance agreement with government

Thematic focus and mass will increase impact and quality of education and research

Strategy contributes to regional economic and societal challenges, to human capital

Strategy needs regional partnerships in Triple Helix settings

Profiling helps in the ambition to become a ‘real’ UAS

Critical conditions for realization

- Increase the educational level of the staff (at least at graduate level)
- Financial, existing and additional means are earmarked for the LT-agenda
- Lectorates should develop from separate units into functions embedded in the schools
- Funded PhD-programmes for staff are related to LT
- Lectorates are the driving force in implementing LT in schools' study programmes
- Employees are inquisitive, explorative, and entrepreneurial
- HTSM and Technology in Education expertise centres will enable the focus on LT

Thematic profiling on Living Technology

- LT focuses on innovative technology
- LT focuses on HTSM (with added focus on nanotechnology, mechatronics, smart materials)
- LT is interaction between technology and society
- LT contributes to economic and societal needs/challenges
- LT is practice-oriented research with a user-centred perspective
- LT is embedded in all education programmes and research agendas

The impact on research and teaching

- Study programmes adopt LT projects,
- LT projects are steered by lectorates
- LT needs an interdisciplinary and inter-professional approach

6.4. Intended change

Strategies are there to effect change. It is striking that although the desired direction (reason and ambition), goals, and results are described, the process of change in order to achieve the desired identity is not explicitly described in the policy documents. Whereas the urge for a new strategic agenda implicitly suggests that there is a gap between the existing identity and the development towards a renewed identity (as reflected in the initial codes and the summarizing themes), change management is not explicitly mentioned in the policy documents.

We shall describe this intended change using features from the 'Change Kaleidoscope' tool (Balogun and Hope Hailey, 2008), which is a useful model for assessing organizational change. After all, organizational change plays a role in the storytelling perspective; in this sense, stories are also influenced by the way in which the strategy is planned and executed, explicitly (managed) or implicitly (unmanaged).

The change path includes the two dimensions of the Saxion strategy (improvement of quality and thematic profiling). The quality improvement change shows an incremental evolution with an end result of realignment, gradually implemented through staged initiatives and interventions. The desired end results are mainly determined by the compulsory and selective indicators of the performance agreement with the Ministry of Education. The type of change of the second dimension, the thematic focus on Living Technology, differs from this change path. Choosing this profile is a 'big bang' with a path of reconstruction that, when change is embedded, will result in further incremental transformation. The starting point for the change with the adaption (of improvement quality) and construction (of thematic profile) is steered top down in the planning & control cycle. The urgency for change is very much influenced by the external governmental environment (which is manifest in the performance agreement). The Board of Directors counter this environmental pressure with an adaptive, centralized approach. Choosing for a profile of innovative technology reflects the true belief that innovative applied technology can make a difference. And in managerial terms, a clear focus is believed to enable more transparency in directing and dividing resources. The change style is mainly a directive approach. The explanation of the importance was driven by the threat of losing money (due to the mechanisms of selective funding), and the promising thematic opportunities (in line with the national top sectors). The change target is described by Strategy

12-16, and further developed in detailed results and desired outcomes at the level of schools, which are strictly monitored. Several change levers have been introduced: technical levers (targets, objectives, adjustments in monitoring systems within the planning & control cycle), interpersonal levers (deans informing and kindling enthusiasm in their departments, visits by executives), and communication (brochures, flyers, seminars, promotions). The change role is explicitly performed by the members of the Board of Directors (executive board members, the directors, and deans) as the change agents. For the implementation of the strategy, the various schools delegated members to task forces, but the process was always steered by deans in order to ensure ownership of the corporate strategy in the organizational 'line'.

The contextual feature of the timescale for strategic change is set within the planning period 12-16 and has several performance indicators, which are periodically monitored and benchmarked at the level of schools. Every school shows and explains its realistic contributions towards the corporate ambitions. It is acknowledged that there may be differences in ambitions due to specific contextual features.

Diversity is accepted within the timeframe of targets and deadlines. Only the duration of change and the impact of the change may differ. For example, the academy with technology-related professions (like engineering) might be amongst the early adopters, while other academies may need more time to incorporate technology within their curricula and the competencies of the lecturers. Within the process of change, it is to a certain extent open to decide how far-reaching the consequences of aligning towards Living Technology will be in terms of number of study credits, type of partnerships with firms, profile of staff needed to line up, and changes in the curriculum.

Change capability is not made explicit at the institutional level, but hailed as a matter of concern at the level of the academies. It is assumed that the organization will be able to facilitate the intended performances and changes, although these changes are not explicitly defined in performance indicators. Timescale and diversity are apparently respected, as long as academies comply and explain their willingness to move into transition.

Additional budgets (capacity) are allocated for the realization of the strategic objectives, which underscores the urgency of the intended change. One illustration of this is that budgets are allocated to increase the number of staff with an educational background at doctorate level. Additional budgets are available to initiate and develop research projects related to

Living Technology (preferably in co-creation with regional markets and professions, and linkage with curricula).

Impulses stemming from the external context (with the formal performance agreements) and the adoption of schools and departments as change agents, are used as a firm legitimization to push the strategy. The documents of the planning & control cycle are goal directed and implicitly assume compliance; they are not explicitly reflective about potentially critical challenges, such as levels of readiness and willingness across the organization. Also implicit is the potential gap between the existing identity and image, and the desired identity. No doubts are expressed on whether the ambitions are realistic within the strategic period. The change path of direction and implementation of the formal documents prescribes the 'what' and 'why', but less so the 'how', in terms of change. In the strategy building process, documents do not give an accurate assessment of staff awareness (do people know about the intended change?), their readiness (do they feel capable of contributing in order to realize this ambition?), and their willingness (do they support the change, and do they want to put in an effort?). They mainly prescribe a push strategy with the assumption of a 'logic' argument of compliance and commitment with the strategic agenda, and next to that a pull agenda to ask for support. In time, the conditions become more explicit and intensified in terms of means and expected results. The corporate agenda steps up the pressure on the schools with regard to the expected outcomes. This can be noticed by intensified accountability within the planning & control cycle. Accountability has been increased, as more detailed and explicit information is required, using indicators and (benchmarking) key figures.

The Strategic Agenda 12-16 explicitly endorses the national top sector policy, with its HTSM focus (and specializations of smart materials, nanotechnology, and mechatronics). The term 'Living Technology' has been introduced rather rapidly (as of 12/13), in addition to and/or instead of the term HTSM. Living Technology seems to have become the generic concept, with HTSM as a more specific term. The schools' policy documents are not clear about this. In LED, HTSM and Living Technology do not get distinct definitions. In SW, HTSM is not used at all, and Living Technology is mainly interpreted as the impact of technology on human beings and their quality of life. The Living Technology Research Agenda (2015:10) gives several connotations of LT: technology comes to life, 'living' adds colour to technology, technology is not only about new and innovative products and technology, but also about research into the impact of innovative technologies on people and society and vice versa. This interpretation leads to the corporate proposition: 'Living Technology is the

interaction of technology and society.' The policy documents therefore do not propose an unequivocal definition of Living Technology to be consistently adhered to by the schools.

The policy documents of the school of LED show that, from 2012 on, the LT-semester (also called HTSM-projects, LT-projects, LT-school, LTPS) has become has become a key agent for change, leading to substantial growth of participation between external partners, students, lecturers, and lectorates as providers of and participants in research projects, from those that are mono-disciplinary within specific programmes to multi-disciplinary projects among technical programmes, and then to transdisciplinary projects with less technical programmes.

In the SW policy documents, the (renewed) lectorate Technology in Health Care is seen as the key change agent to introduce technology explicitly in the (overhauled) Social Work curriculum, in which awareness and willingness are critical issues. Where the technical courses seem to embrace the technology-push approach, SW takes up the mission to view technology as a potential enabler of improving the quality of life.

6.5. Complete organization

How should the organization, with a focus on the two schools, be typecast, judging from its strategy making and the associated control mechanisms? Seeber et al. (2015) introduce three key dimensions by which the form of an organization can be characterized: identity, hierarchy, and rationality. Identity is described as reflecting on its specificity, its peculiar mission and approaches. Hierarchy is characterized by the construction of centralized duties and responsibilities and a strengthening of managerial roles (e.g. mandate arrangements that regulate how formal powers are distributed across different levels). And rationality in organizations is shown by being intentional, forecasting goals, objectives, and preferences, and measuring results and performance. The more an organization is explicitly acting according to these key dimensions, the more it can be typified as a 'complete organization', a managed university following principles like efficiency, cost-effectiveness, and central strategic control.

Based upon a large-scale survey among European universities, Seeber et al. (2015) concluded that British and Dutch universities are the most 'complete' in terms of hierarchy and rationality, showing strong modernization approaches of autonomy, competition, and

accountability. Although the survey did not include UASs, based upon the analysis of the policy documents, the Saxion organization could be characterized as a complete organization, as it largely matches the defined indicators of the dimensions of hierarchy and rationality. Hierarchy is particularly recognizable by the strict line-design with directors as owners of the planning & control cycle, including planned strategies, goal-directed results, the instrumentation, and the decentralized mandates, administrated within centralized steering mechanisms. Rationality is clearly manifest by setting goals and objectives, and measuring results and performance.

The dimension of identity seems to be of a different order than those of rationality and hierarchy. After all, rationality and hierarchy are dimensions that do not so much indicate objectives, but more how they can be achieved. The result, or the desired result, then becomes manifest as an identity. Seeber et al. (2015:1459) define identity in terms of the extent to which strategy is influenced by external actors (like government), or in other words, how autonomous the organization is in setting strategies, including providing the financial resources, and how much room there is to differentiate.

Their survey dimensions can roughly be connected to the characteristics as derived from the analysed policy documents, as shown below.

	Characteristics of policy documents
Identity	Complying with governmental policies Performance agreement with government Strong influence from external actors Special on account of focus on technology, focus and mass research agenda, regional/local orientation, co-makership with industrial and societal partners Third mission: Centres of Expertise (HTSM, Technology Education)
Hierarchy	Leadership of strategy by executive board (commitment and compliance from directors of academies) Central coordination of policies and allocation of resources (additional funds, earmarked for strategy objectives) Board members and directors are managers; middle managers in schools are merely executers of corporate strategy

Rationality	Integral planning & control cycle Periodic monitoring and accountability Steering indicators and benchmarking key figures Objectives are set, critical performance indicators are defined, periodically measured, and benchmarked

Table 3. Characteristics of the policy documents

Although the concept of 'a complete organization' might give the impression of a managerial, top-down steered organization, Seeber et al. (2015) notice that even the daily practice and culture of a complete organization could be characterized as a 'blended process' in which vertical decision-making with rationality and hierarchy possibly retains a consensus-seeking approach (Seeber et al., 2015:1469). Managerialism is not necessarily at odds with collegial influence on decision-making and substantial professional autonomy (Bleikie, Enders and Lepori, 2015). Or in other words, the reality of policy documents is one of the realities of behaviour and performance shaping intra-organizational control.

Whereas the concept of 'complete organization' underlines the managerial approach, Stensaker (2015) suggests a typology that specifies more clearly how change is brought about. He distinguishes between the poles 'strategic approach' and 'essential approach': the strategic approach has such features as purposeful, managed direction for change, and is regarded as opposite to the essential approach, which is based more upon continuous organic development. A strategic approach by nature requires a goal-directed and planned process. The more a strategic approach is taken, the greater the organized tension – a gap – between the existing image or identity and the desired identity. And urge for change is about bridging this gap.

It is important to note that the performance and behaviour of an organization are the sum of its policy documents on the one hand, with the intentions and progress outlined therein, and the culture within which this is realized on the other hand. An analysis of policy documents should therefore keep in mind that identity cannot be constructed solely on the basis of the texts. The creation of identity is a social construction, an integrative tool (Stensaker, 2015), in which policy texts play a certain role. Strategic plans should be viewed more as an input to

sensemaking processes, than as an output of sensemaking as they are usually seen (Stensaker, 2015; Gioia and Thomas, 1996:398). From this point of view, strategy reports describing desired identity can be seen as an invitation to participants and stakeholders that motivates and encourages them to contribute in achieving the desired identity, performance, and path towards these goals.

To summarize, the Saxion strategies as laid down in the formal documents show that the momentum for renewing an institutional strategy for the period 12-16 is strongly determined by the top management's adaption of the external national context. Commitment is agreed upon by the performance agreement with the Ministry of Education, which includes issues concerning quality improvement and differentiation by choosing a thematic focus. Rationality and hierarchy are manifested by top-down steering and leadership, although it is stated in the strategy (Saxion, 12-16) that all stakeholders were intensively engaged in the formulation of the new strategy. The rather implicit change process of adaption and implementation at lower levels of the organization are given some initial flexibility with regard to time, scope, and diversity, but over time, the accountability is becoming stronger. Other than in the Strategic Agenda, the policy reports of the schools hardly make any reference to complying with governmental expectations. No critical barriers or negative feelings about the thematic focus on technology are mentioned. The documents give an overall picture of cooperation and willingness.

This, then, covers the reality of the policy documents. Although several instruments for change are mentioned in the documents, they will not automatically predict the success of the intended transition at individual levels. In Chapter 7, the voices of the participants will be heard in order to learn from them how they perceive the focus on living technology. We will move from texts to talks.

7. Micro context: strategy in talks

Chapter 6 focused on the ways in which the LT story is communicated in formal policy texts of the organization. Four themes can be distinguished in LT storymaking: the legitimacy of the strategy, critical conditions for realization of the strategy, the thematic focus on LT, and the strategy's impact on research and teaching. Chapter 7 investigates the LT story as it is told by the organization's participants: how they make sense of this strategy. I explore sensemaking of LT on the basis of how it manifested itself in interviews conducted with a number of participants of the organization. The four thematic codes identified in the policy texts (Chapter 6) were used as the reference framework for these interviews.

Section 7.1 outlines the process of story collecting – which was done by means of interviews – and the subsequent data analysis process. The empirical data of the interviews is presented in Section 7.2, in the form of a narrative analysis aimed at revealing patterns in the data, illustrated by quotes taken from the interviews. The results of the interviews are further analysed in Section 7.3 – also in relation to the policy texts – in accordance with the conceptual frameworks of narrativity and strategy as practice. I return to the central research questions with the presentation of the final conclusions in Chapter 8.

7.1 Reference framework for interviews

As described in Chapter 6, four themes emerged from the qualitative interpretative analysis of the formal texts: the legitimacy of the strategy, critical conditions for its successful realization, the thematic focus on technology, and the impact on teaching and research. Key notions in the four themes are therefore *distinguishing* with a thematic profile, the *understanding* of living technology, the *impact* of the focus on living technology, and the *development* of a focus on living technology.

The interviews took place on the basis of this reference framework. The main questions and supporting questions served as options for the conversations with the respondents.

Theme 1: Why choose a thematic focus?

Supporting questions e.g.:

- Where, do you think, does the concept of Living Technology stem from?
- Can you image Saxion without a focus on Living Technology? What would this look like?

Theme 2: What do you understand by Living Technology?

Supporting questions e.g.:

- What is your relation with LT?
- Could you give an example of LT in your professional practices?
- How would you describe LT to (your) students?
- How would you describe your emotions and feelings about Living Technology? What comes to mind when you hear the term LT?
- Can you think of a particular living-technology event that made you happy/proud? Tell me about it.
- Can you think of a particular living-technology event that made you feel worried? Tell me about it.
- What is the meaning of 'living', and what is the meaning of 'technology'?

Theme 3: What is the impact of a focus on Living Technology?

Supporting questions e.g.:

- Has the LT focus affected your role and work? How?
- Has it changed your thinking/acting till now? How?

- Have you noticed any major changes in practices in the last three years? Tell me about it.
- Have you taken any initiatives to contribute to living technology? Tell me about it.
- How would you describe the connection between living technology and teaching? And that of living technology to research?

Theme 4: What will the focus on Living Technology lead to?

Supporting questions e.g.:

- What will Saxion – with its living technology focus – look like in 2020? Will there be any big changes?
- Do you see any challenges or worries about LT in the future?

7.2 Results

The inductive and interpretative processing of going through the interview transcripts produced more than 100 initial codes based on the first descriptive cycle, all of which were kept close in language to the text of the quotes. In a next conceptual cycle, they were grouped into 15 code groups, with 61 underlying initial codes, and subsequently into four general themes. The four themes are very much in line with the derived themes from the formal texts, as they served as reference framework for the interview design. The codes are listed in an active mode, to emphasize that the respondents uttered their sensemaking in these words.

The results of this interpretative process will be presented as a narrative, structured according to these four themes and their group and initial codes. The respondents are the characters who are quoted, contributing to the narrative. This implies that the quotes are taken out of the conversation context with the individual respondents. As a result, the storylines of the individual respondents become interrupted. As such, they are not idiographic anymore, but abstracted, to a certain extent, from the individual contributions. What matters in this type of presentation of results are the themes – the storylines – of the respondent group who create the thematic storyline together. It will be noted when the storylines of the respondents of the distinguished segments (EB, LED, SW) differ distinctively. The quotes – which were selected from the transcripts – have been literally translated from Dutch to English, with fidelity to the original, while striving to preserve connotations.

Whereas the storyline of the theme is leading, the variations in the respondents' contributions are highlighted as much as possible. These variations may become evident in a certain choice of words, a certain example, or a certain perspective. This is illustrated by citing terse fragments or by paraphrasing. Longer quotes are occasionally given, for instance when they adequately reflect the essence of a theme.

Furthermore, a few synopsis vignettes have been added, which have been drawn up by the researcher on the basis of a respondent's statements, as a concise summary of the argumentation of that particular respondent. They represent several respondents' viewpoints: those of the believer (someone who strongly believes in a viewpoint), the opportunist (someone who makes optimal use of circumstances), the critic (someone who criticizes

sharply and assertively), and the puritan (someone who strictly adheres to an assumption/interpretation). These vignettes have a first-person perspective, and are composed of a maximum of 100 words, using the original word choice from the interviewees as much as possible.

In Section 7.2 the results are listed and grouped per theme. For each theme, insight is given into the interpretative coding process by indicating the code groups as well as the underlying initial codes.

7.2.1 Theme 1: Why choose a thematic focus?

Code group 1: Why choose a thematic focus?	Code group 2: Why technology?
Initial codes: Follows the national policy of Veerman Follows the top sector policy Links the focus to characteristics of the region Leads to efficiency of means Provides more direction on strategic choices Stimulates excellence, more focus on expertise Increases the chance to receive incentives Enhances the stature of the UAS amongst stakeholders (students, human capital, region) Positions the UAS in the HEI (in relation to other UASs and universities) Is in line with performance agreements	Initial codes: Technology helps solve social issues Links up to the High Tech & Smart Materials top sector Fits in with the economic profile of the region of Twente Ties in with the profile of UTwente Ties in with the increasing importance of technology in professions

Table 4. Initial codes theme 1: Why choose a thematic focus?

Vignette synopsis of a 'believer' (EB1)

The focus on technology is the outcome of a discussion within the university and our regions. The Veerman report definitely triggered this discussion. I strongly believe in the need to stand out, to have more face, a brand. As such, technology is not really a distinguishing factor but an explicit focus on technologies that improve the quality of life. Always linked to

applications, e.g. care and technology, energy and technology. We have an enormous potential to establish a reputation in this, and contribute to solutions for complex social issues. We are just at the beginning.

The strategy to opt for a specific focus (Living Technology), as perceived by the respondents, can be interpreted in two code groups. Firstly, there is the meaning of the wish to choose a position, the desire to establish an explicit reputation for the university of applied sciences. Certain aspects emerged in the interviews: Why did the UAS want to specialize? What reason(s) underlie(s) this desire? In line with that, the second meaning is that of choosing a specific position as a UAS, with a specific focus (in this case the thematic focus of Living Technology). This elicits further noticeable aspects: Why only one thematic focus? Why one thematic focus on technology? Why has this been labelled as 'Living Technology?

Code group 1: Why choose a thematic focus?

Respondents from the executive segment EB in particular discuss the motives underlying the choice for a thematic focus. They mention that this would bring a number of opportunities, particularly with regard to strengthening a distinctive identity, visibility, and the reputation of the UAS. Many facets of these opportunities are given. The link to the surrounding region is mentioned: thematic profiling is 'a discussion to find out how we could establish a better relation with the regions in which we are located, combined with something to focus on' (EB1). Having a profile leads to 'gaining visibility and excelling more, which will make it easier to connect with other countries, other universities, also within the Netherlands, for that matter' (EB1). More focus is furthermore expected to lead to quality enhancement: 'Together we acquire more expertise, more power'(EB1), as it reduces fragmentation of means and attention, '(…) that we become less fragmented, that we gain face, establish a reputation, and, as a result, possibly leverage our strengths'(EB1); '(…) less fragmentation of resources' (EB1). A strengthening of focus will also increase the organization's attractiveness to students: 'That we may become more attractive to our students because they can do something here that is not offered elsewhere' (EB1); '(...) we then have more arguments to recruit students from the whole country, beyond the region' (LEDl3).

Besides these specific opportunities, distinctiveness is also regarded as a necessity in itself: 'What I understand is that a UAS at any rate does not want to be a dime a dozen.' (SWt1); 'I strongly believe in focus, in brand, in stature, in distinction, in visibility' (EB1); 'I have never given it that much thought, to be honest, but a choice to distinguish oneself can make it clearer in which direction to go. It helps to make other choices' (LEDl3); 'You must have a unique selling point, after all, we're really good at that, that's where we really go into more depth. (…) If one is really good at something, then institutions, organizations, know where to find you' (SWd).

Focusing on distinctive profiles is also expected to lead to a more explicit formulation of the identity of a UAS within the HE-sector, which will also help to distinguish the UAS from (research) universities, the UTwente in particular: 'One can see that they (UTwente - RJ) stress that it should be relevant. But what we as students and lecturers are doing in the UAS, comes very close to research too' (EB2). In some of the responses, the desired identity of the UAS was expressed in such terms as social responsibility: 'And if we can contribute to that or build track records that contribute to specific topics, I think that is our social responsibility. That too, is a UAS: job-oriented, practice-oriented, with social commitment.' (EB1). Others underline the role of a UAS to apply the relevancy of this research to practice: 'UTwente has done the research, they have validated it, and for UAS it was interesting to investigate whether it can be applied and where' (EB2); 'That it is mainly the technology that already exists in the advanced world, the world of research. But that it can now be applied in a much broader way, that it becomes much more accessible. What one needs in this, in this development... does not require academic research. It foremost requires applied research'. (LEDt2).

The wish for a more explicit focus does not seem to be coincidental. A few respondents, in particular from the segment of EB, refer to an external reason – the report of the Veerman commission (which pleads for more diversity in HEI): 'The report was the challenge, and possibly the trigger to engage in a more explicit discussion together. It facilitated us' (EB1); 'The challenge lay of course in that report which said: 'You all look alike' (EB2); 'A little nudge to really start doing it, definitely' (EB2). These respondents feel that although the need to focus is suggested and imposed by an external political environment, this need is welcomed as an opportunity to strengthen focus and make a lot of strategic choices: 'It helps to make other choices' (LEDl13).

Remarkable is that the option for a comprehensive UAS not to specialize is not considered or advocated as a realistic option by any of the respondents. Apparently, complying with the national policies on profiling, together with its instrumentation of performance agreements, is a premise for most of the respondents. One of the respondents put it in an opportunistic way with the argument 'follow the money': 'In my opinion, this is a matter of funding. I do not know all the ins and outs of it, but that the province of Overijssel, that money has been made available, somehow. And don't ask me exactly how that (…). And in order to claim that money, there had to be co-operation between Windesheim and Saxion and also in the work field. And in some way, from that idea, in order to claim those funds, something had to be done. In short, there's a chest of money, and what can we organize to get our hands on it. This is how I see it. And then, when the regions were partitioned, including the top segments, its name escapes me now... top sectors. And then a division was made, a strategic choice was made, for high tech, HTSM, at the time' (LEDt2)

Code group 2: Why focus on technology?

Code group 1, 'Why choose for a thematic profile?', shows that there is no doubt about opportunities for more focus as such. In code group 2, 'Why focus on technology?', the strategic choice to focus on technology seems to be evident for most respondents for several reasons. At first, the connection with technology can be attributed to the national top sector policy: 'The ministry has emphasized that Dutch schools need to specialize. And they were given the opportunity to do so, on the basis of nine core themes that were offered. Eventually, one flag was chosen, one spearhead, and that was HTSM' (SWd). Secondly, besides distinguishing itself from other UAS's, many respondents take it for granted that the focus on technology ties in with the characteristics of the region, especially the eastern part of the region: '(…) we are located in a region with production industries, and there is a lot of technological development, so that all fits' (LEDl3); '(…) as this part of the country, or this region, has a strong position with regard to technology and high-tech companies' (EB1); 'if you look at the characteristics of our region and you realize that 80% of our graduates find jobs in this region. That is the region that is very much involved in high- tech and those kinds of issues' (EB2); 'Technology has a sound basis, here, in Enschede. (LEDl1)'; 'After all, here in Twente, we are a technology hub, university, etcetera.' (LEDl1). It is also argued that a technology focus matches that of the nearby University Twente: 'And Twente, in particular, has a university with a focus on technology. So, to me it is an obvious choice' (SWd).

One of the respondents argues that this choice for a technology flag is macro-economy driven

‘And I think, if one just looks at a country, then it is not earned by means of services. In the end, the economy is about products, and if one cannot export products, then – as I see it – one cannot afford the services. So, from that viewpoint, I think it is very wise to choose something concrete, even if it is knowledge about products, an engineering consultancy, consultancy in general, as long as one takes a concrete product as the spearhead, instead of services’ (LEDl2).

Overall, respondents relate the focus to the increasing generic importance of technology in society, and its influence on professions. ‘Ever more technology is used, new techniques, new technologies, probably without it being visible, as they are embedded within society, in all professions. The UAS graduate develops the profession, one should at least be aware of the technology that plays a role in that and helps to further develop that profession’ (EB1). Expected is that more and advanced applied technology will help to solve societal problems: ‘It is not about technology for technology, it is about technology that solves all kinds of big issues in the world’ (EB2); ‘The link with technology, not technology in itself. The link of technology and... actually, social issues. That is what it is, in fact’ (LEDl1).

Although all respondents, giving different arguments, are willing to comply with a focus on technology, some of them take a more pragmatic, opportunistic stance. The choice for technology, within the framework of the national top sector policy and performance agreements, is also regarded as a chance to tap into financial incentives that exist on a national and regional level. Some respondents wonder whether the organization would also choose for a thematic focus strategy without the external governmental triggers: ‘I do not think that the subsidies would have come our way if we had chosen agriculture’ (…) ‘And the Ministry of Economic Affairs, which after all has a very large pool of money, and the province which has a large pool of money. So, one should choose those things towards which the money is flowing’ (LEDt1). Another characterizes the increased focus on technology as an opportunistic move to stay tuned to political agendas: ‘Oh, what I think about the idea is that The Hague has argued that UASs should establish distinct reputations, and that there should not be the same kinds of UAS’s all over the country. Keeping in mind that 98.5% of students register at a school close to home so they can keep living at home, this focus will attract 1.5%. So, we have to find a focus, and then performance agreements will be made on that. And one starts to think, and then Twente (…), which has a reputation for technology in the field of... what’s it called... textile industry. And IT is also the showpiece of the Netherlands. And then one connects to that. So, on the one hand choosing technology as a focus of Saxion, and the

word ‘living’ was just glued to it in order to... in fact... avoid that half of its schools... will reject it. And because they will not adhere to the result agreements if they don’t’ (SWl2).

In summary, the thematic focus, even if it was triggered by external politics, is regarded as an opportunity to strengthen Saxion’s position towards several stakeholders. The respondents legitimize the focus on technology as the logical and evident choice to link up with the political agenda of distinctive reputations, and – in line with this – with the national top sector policy. The characteristics of the (sub)region of Twente prove to prevail in the choice for a technology focus. None of the respondents has suggested an alternative choice.

7.2.2 What do you understand by 'Living Technology'?

Code group 3: Euphemism	Code group 4: Acceptation	Code group 5: Meanings 'living'	Code group 6: Inclusive	Code group 7: Examples
Initial codes: Avoids HTSM Avoids negative connotations of technology Expands inclusion of meanings Oxymoron	Initial codes: Increases acceptation of technology in a comprehensive UAS	Initial codes: LT for people LT connects people LT makes life easier People need to learn how to relate to LT LT is dynamic LT is continuous innovation	Initial codes: LT excludes little LT evokes (ethical) dilemmas	Initial codes: Perspective of (end)user ICT Domotics Innovative

Table 5. Initial codes theme 2. What do you understand by 'Living Technology'?

Vignette synopsis of a 'puritan' (LEDd)

The UAS chose HTSM, in response to the top sector policy. In my field of profession, everyone recognizes its value. That choice would have been fine with me. But 'Living Technology' became the payoff. This makes the choice for technology less deterring, internally, and people have more ideas about that. However, towards my contacts, I first explain the link with the top sector, the UAS's choice for technology, and then I explain that Living Technology is not about 'splendid isolation technology', but about the application thereof. Nevertheless, Living Technology is much wider than the HTSM agenda. HTSM is about technological things that are much harder than for instance the creation of application apps.

Theme 1 reveals the variety of ways in which respondents find to make sense of the policy or choice of profiling on technology. Many different ideas on the why and the how coexist. At the same time the term 'Living Technology' is apparently open to all these connotations and therefore, allows or gives people the room to create their own reality and legitimacy. In a population of only 15 respondents, the variety of connotations on the meaning of 'Living Technology' have been classified into the following 5 code groups:

Code group 3. Living Technology is a euphemism which was adopted to avoid negative or complex connotations of ‘HTSM’ and ‘technology’,

Code group 4. Living Technology is a broad umbrella term that allows all schools of the broad UAS to link up; it increases the chance of the technology focus being accepted,

Code group 5. Living Technology is a specification of ‘technology’; ‘living’ encompasses a wide variety of meanings,

Code group 6. Living Technology is an inclusive term that excludes relatively few meanings,

Code group 7. For the elements listed above, the respondents mention a wide variety of examples of Living Technology.

Code group 3: Living Technology as a euphemism

Many respondents consider the decision to opt for the term ‘living technology’ a conscious effort to neutralize negative or complex connotations that ‘technology’ may have, particularly for those working in non-technical programmes: ‘It is a name that has been thought up by a branding agency, to show one’s positioning in a public-friendly way’ (SWd); ‘I, however, feel that Saxion is doing this in order to promote technology towards the external world. And the word ‘living’ softens the negative associations (…) the word ‘living’ was mostly invented for the general public’ (LEDl1). The term ‘Living Technology’ apparently helps to neutralize the connotations of the top sector ‘High Tech & Smart Materials’. Choosing living technology is a deliberate choice to make HTSM sound ‘somewhat more neutral and nicer to the public, the students, and the staff ‘ (SWd). One of the respondents (LEDd) marks the analogy of the label ‘living technology’ with the payoff ‘high tech human touch’ by the Twente University.

Code group 4: 'Living Technology' facilitates its acceptation within the broader UAS

Some respondents mention that – both in first instance, and in reality – the top sector theme of HTSM was chosen (with the road maps nanotechnology, mechatronics, and smart materials). Then there are a number of respondents who report that this theme was labelled more broadly as 'Living Technology' in order to increase the chance of technology being accepted by the non-technical schools: 'I assumed that it was chosen to include the more social schools. Living Technology, technology that plays a role in life, great! Living Technology is on the one hand the choice of the technology schools, to whom the name is very fitting, and the 'living' aspect can also be employed, less centrally, but as an important component of the softer study programmes, those of social sciences. That is what makes it 'living' to me' (SWl2), 'The name allows and challenges everyone to create mental images with it, to wonder 'what does it mean to me'. And HTSM that would not have done that. That term is daunting, whereas the term Living Technology invites one to find out more about it' (SWd); 'I think that from the start they have had the ambition, an image of the future, to keep it as broad as possible. So that it appealed to as many parties as possible' (LEDl2). The term also helps for marketing activities: 'It is a beautiful concept and it sounds fun and one can show it off as an image, one can sell it' (SWt3).

While Living Technology includes all schools, at the same time, the technical schools keep following the specific roadmap of the HTSM top sector theme: 'For my sector, I could have lived with the HTSM spearhead. I first make the link that it is related to top sectors. And then I explain that we have settled for the payoff, internally, by ourselves, to call it Living Technology' (LEDd). By doing so, the technical schools seem to pay lip service to the non-technical schools in the UAS. In practice, the technical schools stick to the specific HTSM-agenda, that they feel differs to a certain extent from the overall Living Technology umbrella. This umbrella is described as: 'Well (…), I think that name has been very diplomatically chosen. Of course, 'life science', the 'living', the living environment, the technology (…). So many things can be grouped under that, it has a very broad coverage, for instance electronics to make wheelie bags run smoothly... but drone projects have been done as well. Or fragrances... whether they could detect them, that involves chemistry and technology, and that is again linked to the living environment. So, LT is enormously, enormously wide' (LEDl2).

But not all activities of Living Technology should be labelled as HTSM: ‘When the Finance or the Marketing School devises an application – app or something like that, which allows another business model within the Marketing or Finance environment, then I think that is a good example of how technology can make that domain livelier. That is what Living Technology is, in my opinion. It has little to do with the HTSM agenda, because the HTSM roadmap is about more complex technological things than making an app’ (LEDd). One respondent argues that the corporate strategic focus is still HTSM, but the technical schools had to come up with something ‘after all, when thinking of a name, that was going to include other schools as well’ (LEDt2).

Code group 5: Wide variation of meanings ‘living’

The name LT consists of the words ‘living’ and ‘technology’. Grammatically, it is a noun phrase, with ‘technology’ as the head. The head is modified by the attributive verb: ‘living’. The respondents link a wide variety of meanings to the modifier ‘living’. Mostly it is interpreted as a dependent term, and in rare cases as an independent term. In other words, the dependent meaning of the modifier prevails: ‘technology *that* lives and enables’. Interesting is that Dutch interpretations emphasize the meaning of ‘technology for life’ or ‘technology that assists life/living’, where in the English connotations the modifier can only be ‘dependent’ like ‘technology that lives’, ‘that shows vitality’, ‘that is lively’.

The independent meaning of ‘living *and* technology’ is also encountered, suggesting a certain tension between ‘living’ of ‘life’ and ‘technology’. In this sense Living Technology is an oxymoron: a combination of two words that seem to mean the opposite of each other.

The multitude of meanings of ‘living’ as a subordinate of ‘living technology’ or ‘technology, can be reduced to the following four groups: technology for people, technology enabling contact between people, technology that maintains or improves the quality of life, and ‘living’ related to social dynamics.

The first interpretation, ‘technology for people’, emphasizes practice-oriented applications for humans as end-users of those technologies, as the following quotes illustrate: ‘It is ‘living technology’. It is linked to people’ (SWd), ‘To me, ‘living’ means all biomedical things/issues

that are related to technology' (LEDl1), 'Doing research based on technological developments in order to develop products and services that are useful to people' (LEDl3), 'My association with 'living' is that it is always about applications to be used by people' (EB2), 'We are talking about people, aren't we, and 'living' is then probably about people' (SWt3),

Under the second interpretation fall the quotes asserting that technology connects people, that it facilitates contact between people*:* 'It is of course mainly about contact between care receivers and caregivers, between professionals and laymen, between professionals and society. So, there is the social component. And in my opinion, that kind of technology supports both the professional and the client' (SWt2). This socially applied aspect of technology is distinguished from 'hard' technology: 'Non-living technology is purely hard technology, as I see it. Computers, design, technology design. And it becomes living technology when it is in contact with people' (SWl2); 'Not technology for technology's sake, technological gimmicks, which I totally disapprove of, but technology that serves society and/or businesses. Not the splendid isolation technology, but giving it life (…) applying technology, to something' (LEDd); 'In first instance, it sounds more humane. I think that what is at stake here is that the technology is used to improve the quality of life. People at centre stage. So, the technology follows the needs of people, and not the other way around. That is why I feel that 'living technology' – or 'social technology' as one might call it too – is the correct interdisciplinary term' (SWt2).

The third interpretation of making life easier and more comfortable, and specifically of improving the quality of life, is mostly mentioned in the context of appliances: 'In what way can technologies help us professionals to enhance our performance in our work with clients. At the same time, it is about how technologies can increase the quality of life for clients and the general public. That is a very important one. Everyone wants happiness, everyone wants health, everyone desires independence. Independence... well, happiness, for sure, wellbeing. That is at the top of everyone's wish list. And I think that technology can play an important role in that' (SWt2); 'Employing technology for a better world. More sustainable, cleaner... more pleasant to live in' (LEDl1); 'Technology that is used to make life richer. Enrichment can be interpreted in many ways: making life easier, longer, more enjoyable' (SWd); 'Within our domain, I think, it is used to support people, to maintain a person's situation, to improve it. Or that it slows down the deterioration process.' (SWt3).

The fourth group of interpretations refers to the dynamics of continuous innovation – technology that is alive (figuratively): ‘Living technology can of course be experienced in many different ways. One can regard it as technology for daily life. One can also regard it as technology that is moving forward. Living, in a certain sense’ (LEDl3); ‘There being a development that it is not stagnant, that it evolves, that it lives’ (LEDt2).

In addition, ‘living’ could refer to the lively and dynamic process of collaborating with students on projects, so-called Living Technology projects: ‘LT are projects on which a number of schools collaborate to achieve one goal. Teaching students within projects in which they collaborate on themes that are just a bit wider than what one would do within one’s own school. Multidisciplinary projects that could include external parties, and which are preferably very stimulating for students, and in which they can show their talents’ (LEDt1). These multidisciplinary projects that run across schools, relate to the fact ‘(…) that technology is alive, that it is developing strongly. The fact that there are diverse projects in which students can work, at the edge of developments that are taking place in businesses. That’s what Living Technology boils down to’ (LEDt2).

So far, the interpretations have been of ‘living’ as subordinate to ‘technology’. The interpretations of ‘living’ as an independent equivalent to technology, ‘technology and life’, suggest that technology can be a threat if people do not know how to deal with it. Whereas technology has much merit, people must also know how to handle it. Or, firmly formulated by a respondent from SW: ‘Technology itself does not make mistakes. But people are not able to use it in the proper way (...) I am inclined to believe that technology is a hindrance (...) Learning how to deal with technology. And not that the donkey is sitting on your shoulders, but that you are riding the donkey. And if you don’t need it for a while, you put it in the stable, and stay away from it for a while. That one makes that choice. And few people do, these days (...). Technological developments should only be continued after one has learned how to deal with the current state of affairs. And not only does technology keep growing, learning how to deal with it, ethical considerations, lag behind, as well as self-control, which is even more important than ethics. So, my personal definition is that it has this meaning too, that Living Technology also includes attention for how to deal with technology’ (SWl2).

Code group 6: Living Technology is an inclusive term

The previous code groups show that LT is a concept that includes rather than excludes. Because of its inclusive character, technology is on the one hand a given, and on the other an opportunity. Technology is seen as an enabler that serves mankind in society, particularly because it helps to solve societal challenges: 'When I look at Living Technology, I don't think it excludes anything. According to me, technology should not be employed with the thought that it does not enrich our lives. I think we should not go for that. We need to employ technology, and I think we are doing that, to make things better, easier, more comfortable' (SWd).

Yet a number of respondents point out that the optimism about promising technologies also present ethical issues. They feel that those moral dilemmas are insufficiently explicitly dealt with in education. In their arguing, 'living' is also regarded as qualitatively standard-setting. Living Technology is linked to the presumption that 'good' things are done with technology. Technology as a substitute for human contact is problematic, according to some, most of whom work in SW: 'Some technology substitutes human contact, and I don't think that is living technology, because to me, living technology should entail human contact anyway... for instance, babies who are never cuddled, but only fed' (SWt1); 'Are we going to put technology physically in our bodies? How far do we want to take this, that is a very interesting ethical aspect, to me. I suppose that living technology will even take us in that direction' (SWt1); 'To what length should one pursue all the developments that are possible? With privacy, the availability of data. In research, in those developments, the ethical aspects should be included. I think that's necessary, also that responsibility, yes, yes. (...) How does this affect people? These questions need time and attention. It is going to change society, culture, technologies' (SWt2); 'Yes, that robot, the thing with the pretty eyes. That is a clear example of the dilemma that confronts us. Because it is of course great that people feel better, and then they have such a robot pet in their lap. But that is, well… it is used so that real contact is not necessary any more, all of the time' (SWt3).

The LED respondents also recognize ethical issues, but to them it is less evident that they should be discussed explicitly: 'Students regularly need to be aware of ethics. For example, in

the BML study programme (biomedical laboratory research), with recombinant DNA for instance, which they are involved in. Yes, those issues are also particularly accentuated on a national level. And that is something we also notice in traineeships and traineeship assignments, that students do something with this. Cloning – there was a good series about this on TV, with the ethical problem of to what length this should be taken. We do think it is important that students acquire ethical awareness about these issues. And often, e.g. in a module there is a section under the heading 'research skills' that tried to address this. But I am afraid that these things are forgotten again rather rapidly' (LEDl3); 'A Living Technology project should take into account ethical aspects. And... I sometimes thought: is that what was meant, what we are supposed to do?' (LEDd); 'It is an official component of our competence system, that one must take into account economic, environmental, ethical and other aspects when doing research. So, officially, it receives attention, but I think that now and then... that one sometimes makes choices on the basis of 'shall we do it like this or like that', and that is not given a lot of attention. There are only a few who have affinity for this' (LEDl3).

Code group 7: Examples of Living Technology

In all conversations, the respondents were asked to give a 'good' example which represent the desired meaning of Living Technology. Before giving that example, the respondents usually indicated that it is their own interpretation, that they do not know whether their example matches the official corporate definition of LT (which they are not aware of). Quite a number of examples of LT are mentioned, mostly applications of technologies, and they are usually regarded from the perspective of the (end) user. Many examples concern ICT applications (contact between people) and domotics. Next, they were asked to give 'bad' or undesirable examples. There were very few who responded to this request.

A wide array of examples of 'good' living technology were brought forward. The examples are mostly related to professional practices in social work and engineering, and are seen as beneficial for the client or end-user of the technologies in question. Examples mentioned from the field of social work are e.g.: 'A sensor measures what goes in and comes out of the fridge, devices that support movements of people, that help in remembering things' (SWl1); 'I can imagine that certain target groups with a low-risk profile for exaltation, GGZ (mental health care) groups, etc., that technologies can be applied that will give those people more personal

control. For instance in the field of planning appointments or visits' (SWt1); 'The best example, I think, is the patient hoist, which was designed to lift people out of bed. Because that's just too heavy, both for professional and informal caregivers. (...) That we now have a machine with which we can lift someone in and out of bed, without straining ourselves while lifting' (SWl2); 'In cases of depression, this has also been proven, that for a certain degree of depression, online help has proven to be more efficient than a face-to-face conversation' (SWt1).

Respondents in the field of engineering notice opportunities of technology innovation improving efficiency and comfort: 'If I were chronically ill, I could do blood checks via applications such as Facetime, Skype, other things, or send data to a GP and consult a GP instead of having to go there by taxi. This would be much more efficient and more effective' (STt2); 'A beautiful project is a soft exoskeleton... it involves light-weight constructions, mechatronics, (...) development of such an exoskeleton in terms of wearing comfort, naturalness, or dignity as one can wear it below one's clothes, for instance' (LEDd).; 'And this project is actually about technologies, for instance spectrometry, that are highly advanced, and how they can be changed into hand-held devices that are much like a mobile phone. So, using a tool on top of one's smartphone, one can mount a lens on it, and upload an app. And then one can, for instance, examine the state of ones's skin' (LEDt2).

As concluded before, it seems that LT has an inclusive value, so it does not exclude much. Some respondents from the SW segment raise ethical considerations, and some respondents of the LED-segment think that LT is sometimes insufficiently innovative (which should be the goal with HTSM).

In summary, the meaning of Living Technology can be characterized as inclusive – it grabs the imagination. It enables a wide variety of connotations which feel, to the respondents, inspiring and motivating, as they offer the ability to link their contexts to applied technologies. They fill the concept with the meaning they like, prefer, can understand, think is important, etc. Mostly it seems related to their context and background. LT is seen as a payoff for a corporate branding of the focus on technology, avoiding possibly negative or unwanted associations by stakeholders (internally and externally). Especially respondents from the LED segment claim that the flip side of this inclusive marketing strategy – which they agree with – is that LT becomes a wide umbrella term, a buzzword of unlimited interpretations, while they want to underline that it is about innovative technologies in line with the top sector roadmaps of HTSM. In this sense, there is a tension between the corporate strategy of inclusion, and at the same time choosing for a specific focus of the top sector theme High Tech & Smart

Materials.

7.2.3 What is the impact of the focus on Living Technology?

Code group 8: Use of name LT	Code group 9: Impact on curriculum	Code group 10: Facilities	Code group 11: Acceptation
Initial codes: Students Co-workers External practice	Initial codes: LED: LT-semester SW: gradually Lectorates as originators Interdisciplinary collaboration: for issues Interdisciplinary collaboration: for students Interdisciplinary collaboration:; threat	Initial codes: Space Facilities Expertise of lecturers Availability of lecturers Pressure on organization Time for change	Initial codes: LED: evident SW: gradually Room for acceptation

Table 6. Initial codes theme 3: What is the impact of the focus on Living Technology?

Vignette synopsis of an 'opportunist' (LEDt1)

To me, LT means projects that involve technology and in which students of different schools collaborate. Preferably projects that are stimulating and cross borders. Let students come up with their own projects. In my view, 'Living' stands for the dynamics of it all: alive and kicking. Saxion now calls it 'Living Technology', but we have done this for longer. The strategy of this spearhead is smart, because we are going to profit from the huge money chests that are available for this, in the form of stimulation funds, on a national and provincial level. Whether that spearhead policy will pay off, I don't know. But yes, that's what we do, in many countries.

The strategy of choosing a focus on technology impacts the daily practice of the participants in teaching and research. The respondents' observations about this can be classified into four code groups: the use of the name 'LT', the impact of the concept on curricula, consequences with regard to needed facilities, and the acceptation of the desired change.

Code group 8: Use of the name LT

The LT concept is experienced as being broad and inclusive. The general proposition 'technology that makes life easier and improves it' excludes little, and with that, offers much room for varying interpretation. And when the name is used, it is predominantly used in the form of its acronym 'LT'. It is hardly ever explicitly defined or explained to internal and external target groups.

To students, the name LT is rather implicitly communicated: 'Okay, but 17-year old students, you tell them that you regard it as a very important topic, but you use the translation, what it means. Whereas the word LT is not mentioned a lot' (EB2); 'I am not familiar with the information sheets. They must be school-specific. For instance about the Life Science programme, then we are not very focused on promoting Living Technology to external parties. They must then be about our biological/medical programme. And while following their study programme, they will discover that it is connected with technology. But whether it is related to Living Technology... no' (LEDl1); 'Some students are actively involved in social media. I am certain that they use it at their workplaces too, to gain contact with children or

youngsters. Whether it is purposefully called Living Technology, I am sceptical about that, but I do think they are using technologies' (SWt2).

Also for staff the use and meaning of LT is implicit and with reservations, especially for respondents of the SW-segment: 'That the curriculum becomes interwoven with the theme, that it starts to dawn on people what it means. It is very associative, interpretations, it must mean something, and step by step one sees that this is lifted a bit, as more lecturers are involved in it now' (SWt1); 'However, at a School of Social Work, it does not touch upon the essence. That is about how one can help people, how to collaborate optimally in a team. And technology is always a relevant aspect of that, but... eh... I seldom or never discuss it with colleagues. Only when we have curriculum development meetings, then the education expert wants it to be on the agenda. Because he or she has been assigned to include it, and rightly so, as it must be a Saxion-wide focus.' (SWl2).

Furthermore, the use of LT towards external parties is limited: 'E-coaching, e-health, these are common terms in our work field. Not Living Technology. It's not a regular term in organizations, no' (SWt2). One of the respondents opts therefore to be more explicit about the desired meaning of LT: 'Perhaps it would be wise to define the concept of Living Technology in such a way that it becomes more than marketing within the UAS itself. To the outside world, I think it's fine, but internally it needs a proper translation, I think' (SWt3).

Code group 9: LT's impact on the curricula

The impact of LT is mainly considered in relation to course curricula. Whereas SW-respondents show some reluctance in using the name LT, for LED-respondents, LT is largely synonymous with their 'LT-Semester', a semester during which students of all programmes collaborate on projects called LT projects.

The LT-semester, with collaboration between programmes within the LED school and increasingly also with other affiliated schools (e.g. built environment, creative technologies), is branded as multidisciplinary, as opposed to monodisciplinary collaboration within a certain course programme. The LT concept has clearly given it a boost throughout the whole School of LED: 'An awful lot has changed because of the Living Technology focus. We transformed

the whole education system three years ago, to make all curricula flexible in the third year, to enable students to participate in multidisciplinary projects' (LEDd). Others state that the corporate LT-strategy affirms an already chosen direction in the laboratory programmes, starting eight or nine years ago, of collaboration in research semesters. 'That has been rolled out to the other study programmes in our School, and since then it is has been called the Living Technology Project Semester. At that time, Saxion was busy with the quest for a focus. Well, that fitted perfectly'(LEDl3). The focus on living technology has apparently strengthened this collaboration: 'I see changes, and hear from colleagues who have worked here for longer that it has an impact on the way in which we work. Yes, that it used to be small islands, the study programmes in themselves in LED, but that now (…) yes people know each other, work together. (...) Maybe it was a natural development, the Zeitgeist, as it were. That LT brought it all together, gradually. I cannot tell whether LT was the start of it all, or vice versa, but the necessity to... yes... collaborate more' (LEDl2).

In the School of Social Work, this transition cannot be pinpointed to one moment. Their curriculum is being overhauled due to changes in the profile, and LT is gradually being incorporated into it. The changes in the curriculum are seen as giving gradually more attention to ICT-technology in particular, designed to contact clients and maintain that contact. One of the respondents describes the discussion about to what extent technology should replace face-to-face contact: '(...) we deal with issues linked to technology… the malleability of society… can we organize everything? Technology is one aspect of that' (SWl2). Someone else states that technology is a fact of life that lecturers have to deal with: 'And, eh, yes, if one discusses this with lecturers, then everyone agrees that it is up-to-date, common practice, that technology is used for the benefit of lots of things. So, there are lecturers who fear that it is overrated in the curriculum. But on the other hand, lecturers who can't see that it is part of today's society... one must question whether they should continue to work as UAS lecturers. In my opinion, it is not acceptable for a teacher to oppose this' (SWd).

The lectorates play an important role in implementing LT in the curricula. The respondents often associate LT with specific projects that are often assigned by lectorates that draw up assignments together with external parties, and then introduce them in education. This puts the lectorates more or less in the role of brokers who connect external parties and the curriculum to lecturers and students. These projects increasingly ask for an interdisciplinary approach in order to deal with the complexity of an issue. Especially respondents of LED mention challenges for these new ways of collaborating: 'Once one chooses to apply

technology to social issues, it becomes very important to offer the possibility to approach that in a multidisciplinary way (…) The starting point is not technology in itself, or a certain profession, but a need that exists in society, and that is the starting point from which relevant parties that can contribute to it are selected. And how one integrates it all successfully' (LEDl3). A development of addressing societal issues for projects in curricula, will even encourage to enlarge multidisciplinary collaboration: 'If one looks at the WMO (Social Support Act) and everything (…), and the spearheads it contains. That people stay within their own environment, that care and support should be organized within neighbourhoods, that is what it has to be geared to. With several disciplines. I am thinking of safety, community police officers, the police... One can also think of people who are involved in care work or welfare. But also technicians who provide the technology. And who can be approached for help by citizens when that technology fails. And who cooperate with the people who supply care and promote welfare. So, quite multidisciplinary. And I think we are not making enough use of that in the education, in our Saxion institute' (SWl1).

Although interdisciplinarity with LT-projects is believed to be promising, it also entails difficulties and threats. The cultures of schools and the professional practices can be hindering: 'A very practical point is that of multidisciplinarity. One would like to have that, but then one is confronted with the different cultures of schools. When a mechanical engineering student has to consult with an applied physics student, they will waste a lot of energy trying to find a common denominator... because what is also considered important, these days, is the reflective practitioner, that you should have the capacity to look beyond the boundaries of your own discipline. With us, that was called the T-shaped professional for some time... You have to be broadly oriented, you have your own discipline but you must be prepared to look across borders. And work together with people who contribute in ways other than yours. In practice, this proves to be harder than I myself had thought' (LEDl3); 'Well, I see possibilities... I am guiding a few second-year students plus a trainee now, who are working on a project about anti-bacterial properties of textile, coatings on textile, for instance, for nurses. And it happens that technicians think of something that is uncomfortable to wear, in the end, or feels uncomfortable, and then it isn't going to work. And if people from other disciplines are involved at an early stage, people who are actually going to use that product. And then not only ask for their opinion, but actually involve them, then I think the process can be adjusted in good time. This is a common problem with technicians. They are completely engrossed in their own field of work, when they see all the possibilities they become very

enthusiastic, and may forget about ethical aspects or different opinions others may have, different ethics, or whatever. And that can clash, and the sooner one notices it, the better' (LEDl2).

In this perspective, some respondents underline that interdisciplinary collaboration should not be a goal in itself. On one hand, it can be a '(...) challenge posed by LT to draw people out of their comfort zones. One can tell... every discipline has its own language, its own customs… and it's very enriching for students, who may not always like it, but in the end, it's very enriching to dare ask, 'What do you mean exactly?', when working with other people who have their own lingo. Instead of remaining in one's own cocoon' (LEDl2). But on the other hand, it must be functional and geared to the reality of collaboration and innovation as it occurs within professional practices and companies: 'Education often starts from new arrangements: they must collaborate, so let's put them together. For these kinds of projects that is wrong, because you should first consider how it is done in reality, and then try to link up to that... At specific moments, there are specific interactions, and one should be very aware of that' (LEDt1); 'It could be a plus to take on multidisciplinary projects. In the beginning, it seemed that this was going to be implemented as a rigorous demand in LTPS. I have always protested against that. It should not be imposed as an obligation' (LEDl3).

Code group 10: Threats with regard to facilities

Increased attention for realistic, multidisciplinary LT-assignments makes demands on conditions and facilities. LED respondents in particular, frequently mention growing problems in the organization and financing thereof. An increasing number of student groups need to use the same facilities, whereas the availability of spaces, equipment and materials is not sufficiently organized: '(...) more facilities could be created for that. For instance, more room in school to work on this. And for doing research, more means and technical facilities are required' (LEDl1); 'In some of the study programmes, students first did two traineeships elsewhere, and then graduated. And that is now... one semester in Saxion. And in terms of space, really physical space, that's going to be a problem' LEDl2; 'What we are confronted with, in those research projects in which students are in charge, is that they want to plan by themselves when they work in the practical rooms, and that they need the possibility to keep

their installations intact there for a longer period of time. And the problem we encounter, are those facilities, they are rather weak' (LEDl3).

Furthermore, the project groups' increased demand on the availability and expertise of lecturers is becoming problematic: 'also when students have to wait for a long time, and encounter a problem, then they cannot find someone to help them, immediately, then they get stuck, and that... well, that's a shame, that demotivates them (…) And then we tried to list how many hours of tutoring time would be needed to supervise this responsibly, do you for instance want to facilitate students who want to start up an experiment at 9 p.m. which runs on until the next day. Yes, that was unaffordable' (LEDl3, LEDl2);

A few warn that the point of overkill is near with regard to the organization of it all, and that it could fall victim to its own success: 'Yes, the students also notice the repercussions. Initially, they are enthusiastic about a Living Technology project, but then they hear, that's what I experienced, lately.' (…) We are glad that they are motivated, and enthusiastic, and then it is a shame that this is then dampened by the circumstances.' (LEDl3)

Code group 11: Acceptation of the desired change

The impact of the LT focus differs between SW and LED. At LED, it is generally cast as a change that did not require a critical break with earlier or existing practices. The LT choice is interpreted as a reinforcement of the identity of the technical courses; internally, LT is mostly used in labelling the LT-projects in the LT-semester. With that, the change has initially involved increased collaboration between technical courses, which respondents are positive about: 'In such a large organization, nobody agrees with everything. But the majority of people are positive about it. It is still in its infancy. But such an LT congress – I don't know whether you have experienced it – that brings a certain atmosphere. That's not negative, to me, personally' (LEDl1); 'I also noticed this from my colleagues... they've never questioned the Living Technology title' (LEDl3).

At SW, the impact was interpreted as a gradual transition towards increased use of social ICT technologies, also steered via educational reform of the curriculum in the same period. Several respondents point out that time is needed to relate to the LT focus because of lack of

experience with technology or doubts about the impact of technology: ‘I think that anyway – if one chooses a spearhead – that it will take at least this period, these years, to land in the schools. It needs time, the new developments and changes’ (SWl1); ‘Having trouble with acceptation... but those developments go so fast. Most colleagues come from the work field but don’t have a lot of experience with social technologies. Particularly older colleagues’ (SWt2);; ‘I have a few senior colleagues in my teams. To them it is partly, that’s not completely right either, less evident, as it did not play an important role in their own practice’ (SWt3). These quotes display a willingness towards technology, but also reveal certain restrictions in readiness for change. Time for change, knowledge about and experience with new technologies seem to be essential prerequisites.

Others voice some reluctance or even resistance: ‘LT is less relevant to social work, because what one does as a social worker cannot easily be translated into a technical thing. (...) in social work, interaction is important, and language’ (SWt3); ‘There are some lecturers who... ‘resist’ is too strong a term, but say, who are wary of anything to do with technology. In particular social work courses, in which people are at the centre’ (SWd). Nevertheless management desires that in the end everyone should commit: ‘Well, people who really don’t want it. They’re going to have to accept it, take it or leave it. At some point, you just have to go along... let go of the old, and all move in the same direction, on school level and on Saxion level, see the benefits of it, show success factors, make people experience that it really brings added value, that is not something which is imposed from above, but that it can bring advantages. That we set out from that perspective, that’s where the opportunities are’ (SWt1). Respondents of the EB-segment express optimism about the acceptance: ‘We have chosen Living Technology, and our environment thinks that’s obvious. It strikes me that I’ve never heard any criticism against this choice, that someone doesn’t get it’ (EB2); ‘I cannot imagine, because technology is so interwoven with life, ever more... I cannot imagine that there is a study programme that has nothing to do with it’ (EB2); ‘Yes, and then there is vindication: can one fulfil a role in professional education, and especially if the work field demands that, it is what we train others to do, is it then realistic if someone has a totally different position that implies that they cannot contribute to it?’ (EB1). Apparently, the management (members executive board, dean, teamleader) expect the lecturers to comply with living technology as a logical challenge. The change path of readiness is not explicitly acknowledged.

In summary, respondents experience the impact of the focus on LT as an incremental process of change. There is room to make their own choices, as professionals, about to what extent they want to include LT. As an umbrella term, LT has an elastic meaning, with relatively little

pressure from the organization. To a certain extent, and for a certain duration, there is still a collegial atmosphere of understanding for the fact that some lecturers, especially in the SW School, do not yet completely embrace it. Concerns in the LED School are mainly practical issues of the LT-semester (scale of operation, facilities, finance), whereas the SW-School needs time to relate to increasing ICT social technologies in their domain.

7.2.4 What will the focus on Living Technology lead to?

Code group 12: Incremental	Code group 13: Collaboration	Code group 14: Interaction with more technology	Code group 15: Risks of harm
Gradual brand development More direction for performance Differences in development	More internal collaboration More external collaboration Role of lectorates Collaboration is not an objective	Learning to deal with technology	Administrative continuity Speed Overheating of organization

Table 7. Initial codes theme 4: What will the focus on Living Technology lead to?

Vignette synopsis 'a critic' (SWl2)

The definition of LT, I believe, is 'technology which supports us'. That sounds great; and there are fantastic technologies. However, technology does not make mistakes, but humans do. Especially in their interaction with technology. Then I am prone to look at how much trouble that brings us. The demand of having to be reachable at all times, having to respond to stimuli, gives one a burn-out. And technology can hollow out social contacts between people. We don't learn enough about how to deal with new technologies. And we lose control. Education should teach students how to relate to technology.

As described in the previous themes, the LT focus influences the existing practices of respondents, for instance because interdisciplinary projects have been included in the curriculum (LED), or because social technology is more explicitly discussed, as reported by SW respondents. Yet, many indicate that they experience the LT focus as a gradual and incremental development over time within society, the professional field, and education (code group 12); increasing collaboration (code group 13); and interaction with technology (code group 14). Some respondents point to threats of harm risk (code group 15).

Code group 12: Incremental development

The strategic launch of LT in 2012 has gradually brought recognition and acknowledgement. Whereas in the branding, LT does not seem to stand out as unique selling point – a technology focus is not that distinctive – to many respondents this focus is a proposition that does not come without obligations, even though LT has an inclusive meaning. The UAS has to build a reputation in the field of LT – a promise is a promise, and 'noblesse oblige': 'I suppose that it will become more of an obligation. Then there are two views, and they are both totally legitimate. There are lecturers who say: this just does not fit in our subject. And that can still be true or untrue. And once when it has been investigated, then they might be right. Or else they are just afraid of getting their feet wet. That's one viewpoint, that some people just don't want this in their domain of subjects. But if it is a performance agreement with The Hague, then it is simply an obligation' (SWl2).

Concrete benchmarks have not been formulated for the long-term LT development: 'The sum of it all at a given moment will determine whether we have a focus' (EB1); 'We are only at the beginning... in terms of awareness, the importance of it all, and how it gets translated into content' (EB1); 'We would have known where we stand if we had had a standard, but we haven't formulated one' (EB2).

While it is perceived as a process of gradual development, now (after four years) there are calls for its progress to be followed more explicitly. Some respondents suggest that this

pioneering should be given more direction, which would demand more commitment as well as agreements being made based on more explicit outcomes. Performance standards, e.g. about how graduates could make a difference, are to be defined to enable intervention if progress stagnates: 'I like the gradualism, but I am not saying that we should not push or pull... so, I think that we have tracked it, more or less, but the question that's on our minds now is whether we should research this spearhead process, and whether we shouldn't follow more systematically what schools are doing. We'll be better able to adjust its course that way. So far, we have let things run their course, more or less' (EB2); 'Students are changing, and are going to realize change in the region in a different way' (SWt2); 'Students can show the ways in which they can contribute' (EB1). Some emphasize that the outcome of the LT focus should be felt in the labour market in particular. The students have to propagate the LT approach by bringing in expertise that enhances acceptation and innovation of technologies. At the same time, however, it is noticed that 'the law of the handicap of a head start' is at play in some professional practices which are not yet aware of the impact that technology will have. This is particularly felt in SW.

The results of the gradual development of the focus on LT will show from appreciation coming from the professional fields, and from the extent to which the UAS gains visibility and is found by national and international parties looking for a UAS with an LT profile. This development should lead to a distinctive reputation, a brand. The past few years are characterized as a pioneering or start-up phase: 'So there are enormous opportunities, which we don't always know of yet, or which we cannot utilize yet, but in that sense, I think we are only at the beginning' (EB1); 'It really needs time. It's not a button that one can switch just like that. Thinking through what the implications are for their study programmes, that takes a lot of time' (EB2); 'There is some development in it, and (…) I do think that, if one chooses – as a UAS, and schools follow suit – a focus, and particularly a rather complicated one like Living Technology, then one just needs time for that. It cannot be achieved within four years' time, in the strategic plan period of 2016-2020. This really is a long-term process.' (SWd)

Code group 13: More collaboration

Many associate LT with the necessity of more collaboration between study programmes and schools. This collaboration goes beyond cooperation within a certain domain, e.g. the technical programmes. It is the ambition to broaden collaboration towards more disciplines of the UAS, and towards other knowledge institutes at home and abroad. The lectorates too, could be linked up more in this. The (external) issues then become leading, and the required disciplines (organized in the lectorates) and schools (with their courses) would have a facilitating role: 'I think that interdisciplinary projects, graduation projects, the focus should be much more on that, those assignments that focus on social issues. Not simply apply with an uncle for a job in order to write one's paper or do one's piece of research. We should upgrade that, and become more professional. I think we must have a number of radiant businesses by 2020, be able to showcase a number of beautiful organizations' (EB2);

'If I had a say in this, I'd like to see 50% of our students graduate transdisciplinarily, and more involved in the economy and care. That we invent the new Uber, by linking our students to technical applications, in the economy (...) And that one can say: 50% of our students graduate in a traditional way, specialized not in a transdisciplinary way, but in a multidisciplinary way within their professional field.' (LEDd)

In this perspective, the research agenda of several lectorates should be more linked up with the courses and the students' assignments: 'The LT-semester is now expanded to include art and technology, and textile. (...) For the technical courses, but for instance also ICT, applied psychology. So that really is broad' (LEDl1); 'I think there is still room for further development towards the lectorates. We set up that research semester on the basis of educational targets, predominantly as a means to improve research skills. If it is linked up with the lectorates more strongly, it will be easier to connect with society and businesses, that are to gain from it, after all. We are still engaged in making choices about the spearheads that we want for our research, the areas of attention' (LEDl3).

Several respondents are optimistic and ambitious about promising opportunities in the future: 'It is still so small that I think... if we had much more power and agreement about this, for instance, more means, more room, physical space, then we would have a booming development. Suitable for all types of students, because one applied it in healthcare, the other

in textile, a third one in building, the fourth in (…) Yes, great: one big LT lab, yes great, isn't it!' (EB1); 'When I see the evolution from how it started up during the first years to what it is now, then it has really grown, become bigger, and businesses have become increasingly interested in cooperating' (LEDl2).

More contacts with other universities and regions with similar profiles would strengthen this: 'We still have too little contact with other universities, and only a bit of collaboration with other regions, however, not enough with regions that face the same issues as us. Collaboration brings faster solutions. I think that, in combination with that focus... we could grow in that respect' (EB2).

A few respondents warn for the euphoria of interdisciplinary collaboration. In their opinion, collaboration is not a goal in itself. It could even come at the expense of quality: 'The idea of excellence – that is attached somewhat to HTSM, to Living Technology – is not lived up to, now. It is levelling, at this moment, a levelling element. (...) that students are assigned on the basis of their study programmes. Not on the basis of drive, motivation, cognitive abilities' (LEDt2)

Code group 14: Interaction with more technology

The growing attention for technology in society is considered to be an autonomous development by many, a view to which the UAS subscribes with its LT focus. LT is not limited to a certain period; it is not a fleeting 'hype'. It does, however, raise doubts about its future impact. This can be said in particular of SW respondents, who question the quality of a society in which technology advances and replaces contact between people: 'If one has a lot of means to cope on one's own, that leads to less dependency on others, and care by others, and others won't notice that you may need care. And care implies a social life. I regard that as a risk. If LT is meant to keep up the quality of life, that should not come at the expense of human contact. Technology then brings risks.' (SWl1); 'A robot that is going to provide care to someone? And that talks to you, with which you have a relation? Yes, that troubles me. They are and will always be machines. And that, this has been tested, a digital computer buddy, that one has contact with and that can even respond empathically. No... that is a matter of feeling, too. That is ethics to me too. And I think, people need people' (SWl1); 'Imagine

that the psychologist is a robot which maintains contact with a client, from another distant place, what does that mean if that is possible, what does that say about society when it's no longer necessary to have real contact with another person' (SWt3); 'I think about research conducted in Argentina, when babies are not touched they just die. People need contact. Elderly people are a bit more resilient than babies, one would think. They can survive for a long time, sadly, with too little attention. On the other hand, there being a robot instead of a patient hoist, which is operated by a nurse, that is an efficiency measure that I have nothing against. But replacing human contact by robots, yes... I criticize that. We really should think twice about that' (SWl2). Another respondent subtly describes the example of the interaction of an elderly person with a robot seal: 'I really empathize with that, that can be beautiful. In first instance, it frightened me a bit. Is that our future? Is there no one who drops by, who provides human contact, who touches my face? And who asks: 'How are you?' And it's true that a robot can try to read feelings, emotions... But if a robot can do that too: touch, and ask 'How are you?' And you don't notice the difference anyway between a robot and a human being? Okay. If it has come to that (smile). Well, it is better to see a robot than nobody. Then it is a good alternative. And if it is capable of reading emotions, laugh with me, sing with me, or something' (SWt2).

These moral and ethical issues are significantly less explicitly manifest for LED, because of the practical work attitude of the courses.

Some respondents point out that it is necessary that education pays attention to the impact of technology in these times of rapid autonomous technological developments. How do we, as human beings, relate to the increasing impact of technology on our lives?: 'I think one is not being responsible, as a large institute, if one says we are going to develop technology but not teach how to deal with it... It is really a social responsibility that we have to teach people how to use social technology in particular, with social media, mail, and WhatsApp groups. This is real, one does not need to be a genius, a visionary, to figure out that this is going to go wrong within 10 years, in the Netherlands. Or in 15 years' time' (SWl2).

Code group 15: Risk of harm

There appears to be a lot of commitment to the LT focus. It is considered to be promising and future-oriented, and within the strategic planning period 2016-2020 there has been room for acceptance and adoption. An identified risk of harm to this development is when the chosen focus becomes compromised by administrative discontinuity*:* 'From a managerial point of view, the greatest risk lies in new directors wanting to choose another direction, at some point. That is typical of directors. They want to mark it with their own colour and scent. That would be a shame, I think. I am just saying this from my own discipline.' (LEDd).

A second risk is speed of development, especially when things spiral out of control: 'I just hope that Saxion – and I miss that, sometimes – has the ability to acknowledge that there is something which started out with the best attitude, intentions, but that it's not running smoothly, and that one dares to shift into a lower gear. That things have gone too far' (LEDt2); 'The LT-semester is very populous already, but if soon, more schools (…) If one wants to organize a symposium... then it becomes so massive, then one will see that people (…) Okay, for instance the health-related projects. Then because of the numbers of it, groups will form again... with a slightly different composition than they have now, but one will see groups again. And whether that is to be desired, as the original idea behind it gets lost, because it is so massive' (LEDl2).

In addition, overheating of the organization as a consequence of failing facilities is a critical third aspect: 'One issue that I have a more explicit opinion about is that things are moving much too fast, in my school. It is a way, at this moment it is like this that all schools and their students go for it. And that presents many operational bottlenecks... and I am referring to space problems, supervision/coaching problems, etc. And then there are problems with how to match students with topics, so that one cannot incorporate one's own study programme in it... because of students who are often not (…), it cannot be guaranteed that their knowledge and skills are sufficiently challenged... but that the obligation that all students need to pass through that door, that this is lifted. That makes sense, to me' (LEDt2);

'I now think, very concretely, that the facilitation (…) It's becoming enormous, more space is needed to keep all those students busy. And now there are European Projects, so from Europe

they are linking up, our students can go to affiliated universities. And vice versa. And it is becoming very big, and getting bigger, and this brings new challenges. And with other schools, with ACT (School of Creative Technology), they are going to join in too, over the next semesters, and Business Administration too. And then one is confronted with more collaboration between people, and that's going to change the dynamics of it all too' (LEDl2).

7.3 Conclusions

Based on formal policy texts of the hermeneutic unit (centralized corporate, the decentralized schools of SW and LED) a reference framework was distilled of the 'storyselling' with regard to the LT strategy (Chapter 6). Four themes with specific characteristics dominate those texts: the strategy's legitimacy, the critical conditions for realization of the strategy, LT as the thematic focus, and LT's impact on research and teaching. This reference framework served as the initial guideline for the design of semi-structured interviews with a number of participants of the segments concerned (Executive Board, School of SW, School of LED). The central question addresses storytelling within the organization: how are people making sense of this strategy in their talks?

Conclusions will be drawn from a number of different dimensions, relating to the conceptual framework of narrativity and the approach of strategy as practice: the relation between storyselling and storytelling (texts versus talks), the content of the storytelling, the narrative features of the stories, the respondents as actors in strategizing processes, and the features of change.

Storyselling and storytelling

The storyselling is incorporated in the formal policy cycle of accountability, with its mechanisms of control and accountability on the level of the organizational units (like the schools). These stories are concisely formulated in terms of intentions, and are goal and result directed, although specific milestones are not outlined. The reports suggest that the policy and group results are the result of uniformity and consensus. They contain little or no specific mention of variation amongst (groups of) employees, dilemmas, doubts, scenario planning, or hindrances that could prove critical for reaching the desired results. Arguments for the strategy are presented as logical facts and evident in reasoning.

The storytelling in the interviews reveals another world. The participants prove to be well informed of the topics in the themes and characteristics of the LT strategy. None of the participants communicates that they have been insufficiently or not at all informed. The manner in which they were informed, or via what media and channels, has not been investigated.

The interviews show a great wealth of sensemaking. Whereas the storyselling in the texts has a businesslike and substantive tone, the storytelling displays a large variation in appealing, expressive, and relational dimensions. This is demonstrated by, for instance, the nuances, relativizations, opinions, feelings, doubts, dilemmas, and concerns that were expressed. While the storyselling in the texts suggests an organization in unison, the storytelling by the respondents show a multi-voiced community.

Content of storylines

The interview results have been grouped into four themes: 'Why should the organization choose a thematic focus?', 'What does the term Living Technology mean?', 'What is the impact of the focus on Living Technology?', and 'What will the focus on Living Technology lead to?' As the reference framework for the interviews was based on the policy texts, the themes distilled from the interviews are consistent with the texts. On the level of code groups and initial codes, however, we see more depth and nuances in the interviews.

Each theme has been attributed a number of code groups that reflect the storylines from the perspectives of the three segments. Overall, we do not detect significant differences between the EB segment on the one hand and the two schools on the other. However, there are large differences between the schools of SW and LED. To LED, LT is in fact a continuation of existing practices, and LT is regarded as a broader and partly different perspective than the HTSM spearhead, but this gives a boost to technology programmes as result. To SW, LT is a relatively new perspective that is being explored in combination with a renewal of the course programme. For SW, a focus on more technology is seen as a society related given fact, but at the same time one that should be subject for discussion.

The first theme, 'Why choose a focus?', can be characterized by keywords that indicate an ambition for improvement, strengthening, and enhancement: to relate better to the region, become more visible to stakeholders, excel more, build more expertise, attract more

(technology) students, focus on efficiency of means, and demonstrate more social responsibility by means of practice-oriented research.

The ambition to adopt a focus is influenced strongly by the national policies of improving distinctive reputations in HE (e.g. the Veerman commission), and the choice for technology was motivated by the national top sector policy. This was reinforced by the fact that UAS profiles started to play a role in performance agreements. Most of the respondents were not familiar with the details or the status of this national policy, but they recognize the necessity of following it (mainly because this policy affects the lump-sum finance). None of the respondents considered the option of not following this policy. Their overall attitude is responsive, as they are loyally committed to adapt to the corporate strategy and the external contextual environment.

The choice for technology as the focus appears at first sight to be obvious to everyone. No serious doubts were raised, nor were any alternatives for a profiling strategy suggested. Perhaps it could indicate that the decision-making was based on sufficient commitment or consensus, that the choice for technology was an obvious one, or that there is confidence in the policymaking. But it could also indicate that respondents feel coercion based on loyalty with the organizational strategy. Or it may also indicate that the chosen strategy gives enough room for one's own interpretations. The strategy permits a certain extent of opportunistic behaviour.

LED respondents regard the choice mainly as a reinforcement of the identity of the technical study programmes, and with that of their position within the UAS. To them, the technology focus is synonymous with linking up to the HTSM top sector. For SW, no such link to the HTSM top sector is experienced. They regard the chosen focus as a recognition of the increasing impact of technology in society and professions as such. Not making LT synonymous with HTSM has taken the sting out of the corporate commitment issue: the use of the term LT (people-oriented connotation) has made the HTSM medicine (technology connotation) go down more easily.

The UAS has termed the technology focus 'Living Technology', or LT, its commonly used acronym. The second theme, meanings of LT, shows a wide variation: LT is a euphemism used to avoid negative or complex associations with 'HTSM' and 'technology', or LT is a broad and inclusive generic term with the ability to cover the large variety of study

programmes of the broad UAS, which increases the chance that the technology focus is accepted. Within these, LT includes many interpretations.

LT can be regarded as a set with subsets (e.g. engineering, technology, HTSM, mechatronics, robotics, smart materials). Key elements of the umbrella term are technology for people, technology enabling contact between people, technology improving or maintaining quality of life, and technology that makes life more comfortable. Whereas LT is branded as an important strategic change, it is also regarded as obvious, and as already incorporated in existing practices. LED conforms to LT in its sense of HTSM, and SW conforms to LT in its sense of modern ICT technology used in communicative contexts within their professional practices.

The way in which the modifier 'living' is understood resulted in two groups of meaning. The first is that of 'technology that supports and enables people', which is also the dominant meaning. Here 'living' has the connotation of having a relation to human beings: technology for people, technology for life, technology that enables contact between people, technology improving or maintaining quality of life, and technology that makes life more comfortable. For some respondents from LED, 'living' also refers to the dynamics of continuous technological and business innovation and the lively dynamics of working on LT projects. Secondly, the meaning of 'living *and* technology', suggesting a tension between living or life and technology, is mostly pointed out by SW respondents. This leads to the interpretation that LT arouses ethical questions on the questionable impact of technology on society and human interaction. LT is interpreted as a euphemism (using 'living' to soften possible negative connotations), and also as an oxymoron ('living' and 'technology' that seem to mean the opposite of each other).

It is striking that hardly anyone defines the noun 'technology'. LT obviously does not refer to a specific technology. The English name 'Living Technology' is not under question, and neither are Dutch substitutes suggested. This is all the more striking because its meaning is not unequivocal. The name 'Living Technology' was coined not only to refer to technology that is alive in the sense of having an impact on our lives, but also to technology that is increasingly life-like (e.g. robots) or literally alive. The use of English names has been a trend for some time now, also in education (e.g. University of Applied Sciences, High Tech & Smart Materials, School of Life Science, Engineering & Design). It is probably regarded as status-enhancing, or it is consciously chosen because an English name gives room to multi-

interpretability; in this sense, ‘Living Technology’ is not a loan-phrase from the English language. Rather, it is an English compound noun consciously coined by Dutch speakers.

The third theme, the impact of the LT focus, shows that LT influences the daily practice of the participants. Its influence on practices can be noticed in the use of the term, in the curricula, in the threat posed by failing facilities, and in the acceptation of the change.

There are only a few respondents who attempt to define the LT concept, and it is also not explained to internal and external target groups. At the same time, as an acronym it is a popular buzzword widely used in the organization, and it is conceived as logical and obvious, although it encompasses a complex variety of meanings. In LED, LT is mostly interpreted organically as the increasingly multidisciplinary (LT-) projects in the curriculum, assigned by lectorates. This is experienced as a logical incremental development based on earlier experiences with working in projects. Added value is thus created, both for students and the cooperating firms. SW experiences the momentum of change in the overhaul of the curriculum, with directions coming from a core team designing the new curriculum.
This leads to a discussion about the utility and need for more technology in the professional practices of SW.

The impact of technology in the long term is questioned, mostly by SW respondents. A few of them argue that if the UAS embraces LT, it should also take on the social responsibility to teach students how to interact ‘well’ with technology. This moral–ethical question is hardly brought up by LED respondents.

Expectations of the future impact of the focus are grouped under the fourth theme: the future impact of the focus on LT. Respondents acknowledge that the current phase is one of pioneering and that it is incremental, and that this leads to differences in development. At some point, more direction will be given with regard to the desired results, and to sharpen the focus. More collaboration between study programmes and schools is seen as a critical factor for success. This collaboration should be led by realistic social issues, and by the lectorates. Risks of harm are expected to lie in administrative strategic continuity and failing facilities (space, time, expertise). If these conditions are not sufficiently addressed, the organization could become overheated, which would subsequently lead to discontented staff and students.

In summary, the interpretative analysis shows the following characteristics: the acceptation of the LT focus is high; the concept has hardly been defined or operationalized; there is a lot of

room for interpretation in the degree to which it should be adopted (within schools, and between schools); its name is inclusive, relatively non-distinctive, and non-exclusive; there is little control from a corporate level; the development process is leading; and the desired milestones and outcomes have not been explicitly formulated. In narrative terms, this could be characterized as a key story with many characters, many different storylines and intrigues, and a plot that's still open.

Narrative characteristics of the stories

By telling stories, people give insight into their thoughts and feelings. Stories are sensemaking devices that show how the tellers interpret their context. This reality produces 'facts as experience', as opposed to depersonalized policy texts that produce 'facts as information' (Gabriel, 2000). From the stories, much can be distilled about what respondents really experience, since they also load their viewpoints with an emotional charge, for instance one of optimism, pessimism, opportunism, or cynicism. The depth of the interviews varies from brief and fragmentary remarks as bits and pieces to coherent, whole stories with argumentation lines (sometimes implicitly with a protagonist, a predicament, attempts to resolve the predicament, the outcome of these attempts, the reaction of the protagonist).

The interview as a conversation turns out to have the associated effect that it brings awareness of one's own viewpoints, including the doubts and uncertainties that sometimes go with them. This shows, for instance, from the grammatical flaws in sentence construction and the errors in word choice that can be found in the transcripts. Feedback stating that the interview had been interesting and inspiring was heard from many.

It is striking that many respondents postulated strong assumptions, opinions, or statements. For many of them, the belief in a certain development, wishful thinking, is strongly linked to lacking evidence in the form of supporting facts and argumentation. This sometimes leads to disputable syllogisms. Respondents, for instance, claim that the LT focus is necessary because most students will stay in the region, and since the region is high tech, as many students as possible should follow high tech programmes. In this statement there are several implicit assumptions, for example about the number of students in the region, how many will be employed in high tech industry, and whether the region really requires that much more human capital of graduates with an LT focus. Furthermore, this reasoning focuses very much on a particular region (of Twente), while the UAS has a comprehensive portfolio of courses serving a much broader territory.

Besides implicit syllogisms, respondents give contradictory meanings of LT. Some of them (in LED, in particular) think good examples of LT are technically innovative, not just another app, whereas others (particularly in SW) are of the opinion that the acceptance of applications in professional practices is challenging.

Actors as strategizers

The texts mainly describe the status quo, in terms of intentions and the progress of the realization of the plans on a corporate level (macro level) and a unit level of schools (meso level). This is the procedural strategizing. The interviews with their micro stories show the process of interactive strategizing. This is how practitioners discuss their praxis and practices.

The findings show that the strategy is not a coherent, collective whole of the organization, but that it is more like a movement of activities on several organizational levels: as individuals, and as members of organizational units. Moreover, the voices within one unit do not sing the same tune either. The storytelling of the respondents show that they experience room for strategizing their interpretation and actions. These movement patterns have been deduced from the interviews as themes. On the one hand, there is a planned common intention: the focus on technology. On the other hand, the development process is one of, to a certain extent, messy, unplanned emergence. This practice typically illustrates the activity-based view of strategy as practice: a stream of goal-directed activity driven over time by a constant interaction between influences from the management and those stemming from micro strategizing practices (Jarzabkowski, 2005).

Change features

The development of the LT focus emerges as an ongoing process of actions, which results in variation in opinions, interpretations, and feelings. It is a network of planned and unplanned multiple streams of strategies. There is room for loosely coupled, organic, incremental learning in the ambition to establish an LT focus. The interviews show that much latitude is given for bottom-up initiatives, or that this latitude is simply taken. As many experience some urgency with regard to the changes, existing practices are up for discussion. For LED, this particularly revolves around the extent of multidisciplinary collaboration between technical study programmes. And for SW the change is felt in the degree to which future practitioners are expected to relate to the growing impact of technology in society.

Based on the features of the Change Kaleidoscope (Balogun and Hope Hailey, 2008), the participants' perspectives can by characterized as follows. Neither the texts nor the interviewees offer an explicit description of the strategy, and the latter do not experience it as having a strict design with clear choices about path, starting point, style, target, levers, and roles. In spite of this, implicit choices are being made. Indeed, the change path is incremental with elements of evolution (for LED) and adaptation (for SW). The starting point for change is explicitly marked at the beginning of the strategic planning period of 2012-2016, in a top-down manner (commitment was requested from internal and external stakeholders). The change style is defined both by direction (with regard to the LT theme), and an invitation to participate and collaborate. The desired behaviour change outcome is not explicitly stipulated; there is leeway room in the degree of acceptation. As a consequence, little coercion is experienced with respect to the change goals. The levers of change are predominantly described in the form of stories (examples of LT), rituals (the annual seminar of LT projects of LED), and symbolic effects (for instance the use of the buzzword LT, slogans, statements on billboards, website, and magazines). The change role has been broadly attributed to all participants of the organization. The respondents therefore regard it as an assignment to the entire organization, and do not refer to a specific formal change action agent.

When looking at the implications of the change, the interviews point to the following required conditions: time (for the transition), capacity and facilities (LED, in particular), and capability (SW, in particular). What is regarded as less critical are differences in scope (between individuals and schools), how much should be preserved (of existing practices and expertise), and the degree of diversity (i.e. how homogeneous or heterogeneous the interpretations are allowed to be). The readiness for change – in terms of awareness and commitment – is diffuse.

8. Conclusions and discussion

We return to the main research question, as described in Chapter 2: How do participants of Saxion make sense of the chosen thematic profiling strategy of Living Technology? I have read the stories of people working at Saxion to understand how they make sense of Living Technology, or more specifically, how they interpret what Living Technology is to them. The focus, therefore, lies mainly on what is said in the texts and the talks, and not on the rationale behind certain interpretations.

Chapter 3 provides a conceptual framework for analysis in order to describe the process of sensemaking, using the narrative approach of a storytelling organization from the strategy-as-practice approach, distinguishing between the dimensions of corporate storytelling and organizational storytelling by its participants. The research design, described in Chapter 4, is that of a qualitative case study, which is conducted from a social-constructive perspective with a narrative interpretative approach. The unit of analysis focuses on three segments of data: corporate policy texts, decentralized policy texts of two schools, and the stories of selected respondents. Chapter 5 describes the corporate storytelling organization and its chosen strategy within the Dutch macro environment. Chapter 6 presents the data collected from the corporate storytelling by analysing the corporate policy texts of two segments of data (corporate policy texts, and policy texts from two schools), in order to gain insight into the meso context of the intended corporate strategy. The case study is followed, in Chapter 7, by an account of the organizational storytelling of selected participants of the third segment of data (members of the executive board, and members of the two schools). Their micro-organizational storytelling about LT was collected by means of semi-structured interviews. The themes that were derived from the formal policy texts served as a framework for the interview design. In Chapter 8, I will draw comprehensive conclusions by summarizing the main findings and relating them to the main research question and the conceptual framework of the strategy-as-practice approach with the chosen method of storytelling.

The following aspects will be discussed in succession: the strategy-as-practice approach applied to the dimensions of corporate storytelling and organizational storytelling (8.1), the mechanisms of the storytelling organization (8.2), the case study and its conceptual framework (8.3), and, finally, a few organizational recommendations will be given (8.4).

8.1. Strategy as practice: corporate storytelling and organizational storytelling

In this case study, I have taken the stance that realizing a strategy and effecting an intended change is an ongoing, emerging, multi-discursive process in which an organization's participants have influence on both its direction and performance. This conceptual framework of strategy as process considers an organization not as a relatively static unit with formal processes and procedures, but as a living process of people continuously making sense of their daily practices (Boje, 1991, 2001; Mintzberg, 1994; Weick 1979, 1995). Regarded from this perspective, a strategy is a balancing act between top-down ignition (strengthening and steering) instigated by some participants, which is hierarchical to a certain extent, and bottom-up strategizing by participants as actors and strategizers, with room for organic, incremental learning. Strategy can thus be regarded as a process of continuous interaction of (partly) meso-intended, planned strategy and, on the micro level, of emerging, unplanned (to a certain extent) activities by the participants of the organization. The forces that influence direction and performance are therefore top down as well as bottom up. Strategy, then, is the result as process, and outcome of this collective process.

The strategy-as-practice approach is a conceptual framework that puts the dynamic character of the practices of people in an organization at the centre. It focuses on what people actually do (or say they do), as strategizers, and how they influence the organization's strategy in terms of the direction and outcomes of the organization (Czarniaskwa, 1997, 1998, 2004, 2008; Fenton and Langley, 2011; Jarzabkowski, 2005; Johnson et al., 2007; Paroutis et al., 2013; Rhodes and Brown, 2005). In this process, language is an important sensemaking device, supplementing to other devices, such as actual behaviour or the 'language' and influence of the physical environment (Brown et al., 2005; Brown and Thompson, 2013; Gabriel 1995, 2000; Gabriel and Griffiths, 2004; Rhoades and Brown, 2005).

This case study has been carried out from the perspective of strategy as practice and the narrative research method of storytelling. The narratives of the respondents (in their roles as practitioners/strategizers) were analysed against the background of the macro and meso contexts of the organization, on the basis of which an interpretation was constructed of the sensemaking of the Living Technology strategy.

The chosen conceptual framework is based on the idea that the direction and behaviour of an organization can be typecast as a gradual continuum in time, with a dimension of corporate storytelling and one of organizational storytelling (Chapter 3.3). Corporate storytelling is the story of the formal organization, which is intentional, and usually voiced in corporate policy documents (on strategy, mission, intended results) and spread via various media channels. Typical characteristics of the corporate storytelling dimension are top-down leadership; goal- and result-directed, intended and planned outcomes; mono-authored distribution; and formal control mechanisms. The dimension of organizational storytelling, on the other hand, focuses on the praxis of the practitioners in their daily practice. Practitioners spread and influence the corporate storytelling. They do not merely copy the intended corporate storytelling, but also make sense of it: they interpret the corporate story, and relate their actual behaviour and storytelling to it. Organizational storytelling is characterized by unmanaged areas – by those dynamics created by the scope provided for bottom-up initiatives and process-driven incremental learning.

In this case study, the dynamics between corporate storytelling and organizational storytelling have been made visible. Both dimensions are briefly described below, based on the empirical findings.

Saxion's corporate strategy reveals many characteristics of explicit corporate storytelling. The organization formulates a corporate strategy for a new planning period, as prescribed by the regular planning & control cycle. With the new strategy, the organization re-positions itself with regard to its desired future identity as a UAS within the contextual environment. The thematic emphasis on innovative technology as an overarching focus has been coined as 'Living Technology', and specifies spearheads in the field of High Tech & Smart Materials (HTSM). Several texts on the new strategy in the corporate documents state that this focus should significantly affect the performance of the organization (e.g. an increase in research staff in LT areas, the establishment of two new centres of expertise in technology areas, connection of LT to professional contexts of applied education and research).

The analysis of the corporate texts (Chapter 6) shows that the chosen corporate strategy is strongly influenced by the macro context (Chapter 5). Especially in the years 2010-2011, the governmental macro policymaking in HE in the Netherlands was strongly influenced by societal expectations of education and applied research and the underlying concepts of Triple Helix collaborations and the production of new knowledge (Clark, 1998, 2001, 2004;

Etzkowitz, 2008; Gibbons et al., 2011; Slaughter and Rhoades, 2004). Keywords of this neoliberal approach are utilization, relevance, valorisation, and entrepreneurship. The 'new public management approach' provides for increased steering towards preferably measurable outputs specified by means of performance indicators, and earmarked financial output of performance agreements (HBO-Raad, 2007, 2008, 2010, 2011). Governmental policies on education and research formulated by the Ministry of Education and the Ministry of Economic Affairs – agreed by the employer organizations of HE – herald the desired change of close-to-the-market and society-oriented education and research, using such rhetoric as: 'close to the (economic) wind', 'reach the top', 'knowledge needs to be utilized', 'from knowledge to profits', and 'knowledge matters' (OC&W, 2010, 2011a, 2011b). The overall underlying assumption seems to be that more focus (priorities in distinct profiles and areas, especially in technology-related areas) and mass (adequate capacity and specific quality) will improve the quality and impact of results in the form of economic and societal benefits. In their role and capacity as suppliers of human capital for regional and national benefits, UASs are seen as change agents for societal and economic challenges, and as problem solvers able to address (regional) industrial needs. The linkage of training programmes and practice-oriented research at UASs, with the instrumentation of lectorates, can create a teaching–research nexus (Jenkins and Healey, 2005; Jenkins, Breen and Lindsay, 2003). Some scholars, in particular from critical management studies, criticize the market-driven expectations and assumptions about the role of higher education (Alvesson, 2013; Alvesson and Sveningsson, 2008; Alvesson and Willmott, 2012; Collini, 2012; Nussbaum, 2010).

The expectations of governmental and industrial stakeholders – often associated in Triple Helix collaborating networks – have become very influential in the policies of individual institutions. UAS as a sector and its individual institutions can thus be characterized as hierarchies penetrated by these external stakeholders (Bleikie, Enders and Lepori, 2015; Hazelkorn, 2005; Kyvik and Lepori, 2010). Saxion UAS too can be regarded as a stakeholder's organization. Influential external stakeholders are the national government (both in terms of policy and financial resources), the Netherlands Association of Universities of Applied Sciences (e.g. in their approval of governmental policies and associated performance agreements), the provinces (e.g. in their stake in Expertise Centres), and industrial and societal partners (situated within the region).

By adopting the Holland Tech top sector (with the HTSM road map), Saxion clearly allies itself with the national top sector policy and the profile of the East Netherlands region (subregion of Twente, in particular). The thematic focus of LT can be interpreted as an opportunistic and punctuated equilibrium. It shows responsiveness and obedience to the contextual environment, and helps the organization to set strategy objectives for organizational development and improvement.

The organization's formal documents belonging to the planning & control cycle suggest that the strategizing is being developed in unison. Concisely and succinctly, the schools describe the progress of the implementation of the LT strategy. Four main themes can be distinguished in those texts: the establishment of a distinct reputation, the variety of meanings of 'Living Technology', the impact of the LT focus, and the development of LT over the longer term. Whilst several other quantitative strategic performance indicators, i.e. study success and student contentment, are explicitly defined and are being monitored (Appendix 2), the way in which LT will be further developed is left open, more or less, by the schools.

On account of its strategy, Saxion UAS can be regarded as an explicit corporate storytelling organization with a persuasive message strongly influenced by the governmental context. While the formal reports (at corporate and decentralized levels) hardly formulate any dilemmas or doubts regarding their readiness or willingness to adopt the chosen corporate focus on Living Technology, the reality of the organizational storytelling in the interviews adds a highly enriching dimension. Here, a multi-voiced reality of interpretations of the Living Technology strategy becomes manifest. The combination of 'living' and 'technology' proves to be an inclusive term that carries many meanings. It is regarded as a euphemism (in order to neutralize any negative connotations with technology or HTSM), as a multi-interpretable collective name (encompassing both the agendas of technology in its broader sense and that of HTSM), as an oxymoron (with 'living' as a dependent or independent term), and as an antithesis ('living' in contrast to 'technology'). Furthermore, as a modifier 'living' has several meanings: technology that is alive, a lively and dynamic process, people-oriented, and living technologies (robots).

The general understanding of the LT proposition of 'technology that improves life or makes it more comfortable', is experienced as inclusive by all the participants. It is open to many interpretations, and seems acceptable and obvious to the staff. The specialized corporate spearhead on HTSM, however, is interpreted as exclusive by the LED school. LED considers

that the explicitly specified spearhead of High Tech & Smart Materials is in fact the corporate strategy, whereas participants in SW regard the more encompassing concept of Living Technology as leading. The inclusive and exclusive interpretations interact both in corporate storytelling and in the organizational storytelling. It seems that 'Living Technology' is the sugar that helps make the medicine of the national top sector HTSM roadmap go down.

8.2 Mechanisms of a storytelling organization

The case study reveals the dynamics of a storytelling organization with a continuum between the intended corporate storytelling and the micro sensemaking through narratives of the organizational storytelling. 'Continuum' refers to the ongoing, connecting, and interdependent practices. Both the intended corporate storytelling (and selling) and the incremental multi-vocal organizational storytelling by participants shape direction and performance. Apparently, LT has the power to ignite an intense process for the whole organization, as it sets a focused agenda. At the same time, there is openness about the changes that it will bring. Participants seem to be aware that it will lead to more focus and change, and they still experience room for interpretation and the freedom to decide on how to bring the changes about. The variety of micro interpretations can be explained as an inclusive multidimensional strategy: while loosely coupled to the corporate strategy, at the same time there seems to be compliance with the overarching LT focus as such.

The mechanisms that are at work in this praxis are revealed by the actual lived experience documented by this case study. I interpret – while referencing the conceptual framework – four mechanisms: the change path, the coining of the strategy, its implementation via soft power, and the complexity of the organization. My argument is that, because of the scope provided and used for sensemaking, the change path of the strategy warrants the corporate cohesion of praxis and practices.

a. Change path

The chosen strategy as presented in the texts provides direction and ambition, but is not presented as a road map with clear destinations, blueprints for implementation, and detailed intended results. The strategic agenda raises complex issues that should be promptly discussed

The most notable issues are the consequences of more intimate linkage between teaching and research, the quality and interest of students who are to be involved in research with Living Technology, the challenge of attracting new staff with other qualifications, reputation-building and partnerships with industries related to Living Technology, and assuring the necessary facilities and resources. Decentralized organization levels (schools) are given time and room for development, with the acknowledgment that this is essential to the variety of contexts in the professional fields that the programmes are educating students for. In terms of the Change Kaleidoscope (Balogun and Hope Hailey, 2008) the chosen type of change path can be characterized as a development of incremental realignment towards a transition. It facilitates a change from the current situation to an intended situation. The choice for one institutional thematic focus is nevertheless a kind of 'big bang', whereas, at the same time, the strategy allows the schools and participants the room to align with and contribute to this profile.

The organizational storytelling of the respondents reflects this change path. The igniting vision of the 'Living Technology' focus is interpreted as a promising big bang, but its adoption creates an intermittent phase of alignment, which in time should result in a transformation. It is acknowledged as a process of learning among the participants in the organization. Room is given and taken for development, in order to create and acquire a decent understanding of 'Living Technology'. The strategy as a direction has been formally decided upon, but the change path invites and encourages strategizing, and subsequently allows variety in sensemaking.

b. Coining the strategy: Living Technology

The strategy is clearly responsive and adaptive towards governmental stakeholders, partly on account of the mechanism of a governmental performance agreement (covering e.g. the thematic focus). Whereas the strategy marks a direct connection with the national top sectors in the form of the HTSM roadmap, this is placed in a broader perspective by naming it 'Living Technology', which in organizational storytelling proves to be a multi-interpretable construct, as it gives rise to multifaceted narratives. Even though it is regarded as a buzzword by the respondents, 'Living Technology' apparently delivers value in that it encourages sensemaking. Respondents indicate that their practices and activities are influenced by the concept. This is evident, for example, from more linkage between research and teaching (especially with the leverage of lectorates), greater self confidence and more faith in the

ability to create a distinct reputation, strengthened connections and collaborations with external clients, and increased focus on technology in the curricula and research agenda.

Although LT is a multi-interpretable construct, it can pay off, just like ‘let’s make things better’ and ‘sense and simplicity’ did for Philips, or ‘high tech & human touch’ did for the UTwente. Even though the propositions of such payoffs do not immediately refer to specific content or a certain functional uniqueness, they bring corporate value. In our case, the word ‘living’ is an inviting appetizer. The appetizer is served together with earmarked support funds (for e.g. new technology-oriented lectorates, new lab facilities, and technology-oriented PhD programmes).

Apparently, the openness of strategizing is inviting, because its prescriptiveness is limited to a certain extent. In the strategy-as-practice approach, this can be characterized as a praxis in which multiple streams of activity coexist. The corporate storytelling is a result of polyphony, dialogical authorship resulting from the scope provided in the form of unmanaged areas. This diversity, however, is not entirely unmanaged, as it still falls under the corporate umbrella of Living Technology.

c. Implementation by soft power

The implementation of the strategy shows an organization of mainly harmony and responsiveness. Conflicts of interests or power issues are rarely mentioned in corporate reports or interviews. There is compliance with the focus, which is legitimized on the grounds of the expectations of the external stakeholders (government, regional industry). Most of the respondents regard the focus as obvious: the growing presence of technology in society is a given, and education and research should prepare students for that. Some respondents point out that the chosen strategy is tactical and opportunistic: joining the top sector policy (with its neoliberal government policies) is a clever move, as major financial resources are being earmarked for this objective (e.g. in the performance agreement with the government and in the form of technology-oriented subsidies).

In terms of intended change, the focus on Living Technology can be interpreted as ‘a soft power’. Detailed goals to which the whole organization must adhere have not been formulated. The organization resembles a collaborating network, with a shared corporate interest in which there is room for fragmented, pluralistic practices. The strategy process is that of managed, top-down ignition, which is to evolve into less managed, decentralized

bottom-up practices. With this, the case study shows a storytelling organization, in which corporate storytelling and organizational storytelling do not occur in serial phases but function parallel to and interwoven with each other. Heroic leadership persuasively selling the corporate story is combined with a process guided by development, discovery, and interaction.

The extent to which use is made of power mechanisms and coercion could of course also be related to the development phase of the organization. The organization emerges as healthy and in control in this case study. This is reflected by its strategic agenda, which is aimed at development and opportunities, not at solving a crisis situation. The practised soft power approach could be the reason for this harmonious change path. The soft power approach also suits a knowledge-intensive organization with professionals aware of the delicate mechanisms of influencing and being influenced (Weggeman, 2008), as it emphasizes and respects the value of practitioners (professionals), albeit with the implicit condition of loyalty to and trust in the organization. Another reason for this could be the Dutch culture aspect of the 'polder model'. The verb 'poldering' has been coined to cover this kind of cooperation based on diversity. It is a decision-making mechanism based on seeking a compromise.

d. Complexity of organization and stories

The perspective of emergent strategies in organizational literature regards strategy as a pattern which emerges over time and which is based on experimentation and discussion. The strategy-as-practice approach takes into account that organizing and steering an organization is a continuous and complex process brought about by practitioners in their praxis and practices. This stance is opposed to the more linear 'planning school', which focuses less on the process and more on the intended outcome. Its process aspect characterizes the organization as a collection of people with shared goals and ambitions, influenced to a larger or smaller extent by stakeholder power. Interdependence as a stakeholder organization is a given in this.

With its perspective of the four distinct mechanisms, the case study shows a process of emerging strategies. The corporate strategy and related corporate storytelling are labelled as 'Living Technology'. In other words, this shared ambition and interdependence keeps the organization together. Next, the organizational storytelling offers and takes advantage of opportunities for shared stories on decentralized organization levels (e.g. that of schools, course programmes, departments). The corporate storytelling therefore starts with the

strategic choice of what constitutes the 'corporate level', which, in this case, is the entire UAS organization. Alternatively, the 'HTSM' focus could have been restricted to the School of LED, in which case the shared ambition and dependence of other schools would not have been mentioned or encouraged. In that scenario, LED – with HTSM – would have become an exclusive feature of Saxion, a kind of centre of excellence.

Saxion has clearly opted for an embedded strategy. The common denominator of Living Technology underlines the inter-dependence and loyalty of the sum of its parts. It is a balancing between the comprehensive corporate unity and the diversity of the micro contexts of the various schools. The corporate storytelling also stimulates corporate sharing. The openness and vagueness of the term 'Living Technology' offers room for discursive strategizing.

This can be illustrated by means of the analogy of a flock of birds. Every bird chooses a position within the flock or subflock, the composition of which changes continuously. A bird flies along with the flock, sometimes at the head, then at the flank or at the tail of the flock. The direction in which it moves is not only determined by its inner dynamics but also by external influences such as thermals. Whereas individual screeches can be discerned, their screeches also form a wall of sound, which may sometimes sound harmonious, at other times more like a cacophony. The bird in this analogy is the practitioner who cooperates with others (e.g. in teams or schools) and simultaneously contributes to the direction in which the whole community moves. The shared direction is the result of the contributions of all. Or, in terms of storytelling, without corporate storytelling there is neither a storyline nor a shared direction, and without organizational storytelling there is neither action nor characters to form the flock.

8.3 The case study and the conceptual framework

The conceptual framework of strategy as practice considers strategy to be a situated, socially accomplished flow of organizational activity by practitioners through practices. This is an activity-based view: multiple actors with potentially divergent goals and interests are more or less aligned. While contributing to communities they create meaning, which is a continuous process of becoming. Strategy is therefore an ongoing activity under construction.

This case study makes the strategizing activity of sensemaking visible. The corporate texts, influenced by the environmental context, are administrative artefacts by which the organization sets direction (related to content, but also technically by allocating resources). There are multiple practitioners, inside and outside the organization, that are interrelated (as the notion of stakeholder organization underlines). The analysed segments (texts and talks by the Executive Board, School of LED, and School of SW) show a dynamic of diversity in unity: while the focus on technology means there is a certain extent of unity, at the same time practitioners give and are given scope for diversity, in the form of interpretations of 'living' and 'technology'.

The chosen narrative method reveals this diversity. Whereas the theme of the strategic story is a given (ignition with coercion), there is room for multi-authored storytelling by the characters, who provide action and plot-twists. The respondents' organizational storytelling presents a reality that cannot be made visible in the administrative practice of accountability. The corporate reports present the story in abstracted terms, as facts, as ideas to which the whole community (e.g. a school) subscribes, whereas the community's strategizing activities within practices are much richer than that.

In the narrative method, the concept of 'story' can be defined in several ways: as antenarratives (fragments as potential ingredients for a narrative), as a complete story (a narrative with the classic characteristics of plot and characters). In post-modern treatment stories are everywhere: even objects tell a story or are stories.

The stories of the individual respondents in this case study are best characterized as 'terse fragments'. In a subsequent step they can be translated into more or less multi-vocal stories (for instance in the form of a synopsis). Data coding enables the construction of a complete story for a certain segment and in relation to other segments. The analysis of the findings (Chapter 7) shows that on the basis of terse fragments, an interpretation of the polyphonic strategizing discourse of a community can be constructed. Thus, the ways in which corporate storytelling and organizational storytelling influence each other can be made visible.

This case study with its strategy-as-practice approach and narrative research method may be interesting in itself, but what does such a level of analysis tell us about strategy in an organization? Johnson et al. (2007) also raises this question in his quest for topics for further research within strategy as practice. This case study can be regarded as an exemplification of the practice turn, from the perspective of language. It moreover shows that corporate

storytelling and organizational storytelling exist in an interrelating continuum, in a critical balance. The term ‘continuum’ assumes that these dimensions are in line with one another. The approach taken by the ‘planning school’ strategy (output oriented) and that of the ‘content school’ (process oriented) are therefore not complete opposites, but can be regarded as being in tune with each other.

This continuum can be illustrated as a ‘storytelling context’ with the constructed realities of macro, meso, and micro environments (Figure 3). The macro stakeholders (e.g. national and regional governments, industry) set an agenda with demands, expectations, and assumptions for the higher education sector and their individual institutions. The meso environment can be typified as the dynamics of translating these ‘stories’ of macro demands into corporate policies and stories, which are to a certain extent input for the further internal policymaking and sensemaking of the schools. The meso environment of the schools is a combination of shared corporate issues and their own decentralized topics. The micro environment consists of the people in the schools that are engaged in several collaborating interactions (e.g. working groups developing new curricula for programmes, developing modules with content and cases, teams executing the lecturing and research). The people in the meso and micro realities are not always clearly separated, as they can act in both realities depending on their formal or informal role. Between the three environments there is an ongoing, continuous interplay of influence, within which formal constraints of power and coercion, along with the soft power of the daily, emerging process of human interaction and sensemaking are simultaneously influencing each other. On the one hand coercion and pressure is manifest by setting corporate policies and their goals, but on the other hand room is given to and taken by all individuals involved.

In this case study the macro pressure is the demand and expectation that HE-institutions should profile with focus and mass. The corporate strategy is responsive to these expectations. The micro context and the meso context of the schools, however, show room for multivocality and equivocality. The thematic profiling on Living Technology is given, but individuals (organized in a variety of collaborations) are invited and encouraged to make sense of the thematic profiling. The interviews with some participants show that this sensemaking and influence is indeed present in their daily practices. They speak out about their experiences with, and interpretations and opinions of the focus on Living Technology and how they are practising this. In their roles and their responsibilities they influence the sensemaking of the strategy (e.g. in building and developing curricula, modules, cases, assignments). By doing so

they contribute to and influence the direction and implementation of the corporate strategy. Profiling on innovative technologies is prescribed as a corporate thematic focus, but the people's praxis and practices reveal multivocality in the sensemaking and strategizing. The micro reality and the meso reality can be typified as balancing influences and powers. The meso reality (with the plan and control accountability of annual plans and annual reviews) is setting an agenda, in line with the corporate strategy. The micro reality is the sensemaking in praxis and practices, influencing the meso outcomes. Corporate strategy in this sense can be characterized as the sum of the strategizing actors in the micro and meso realities.

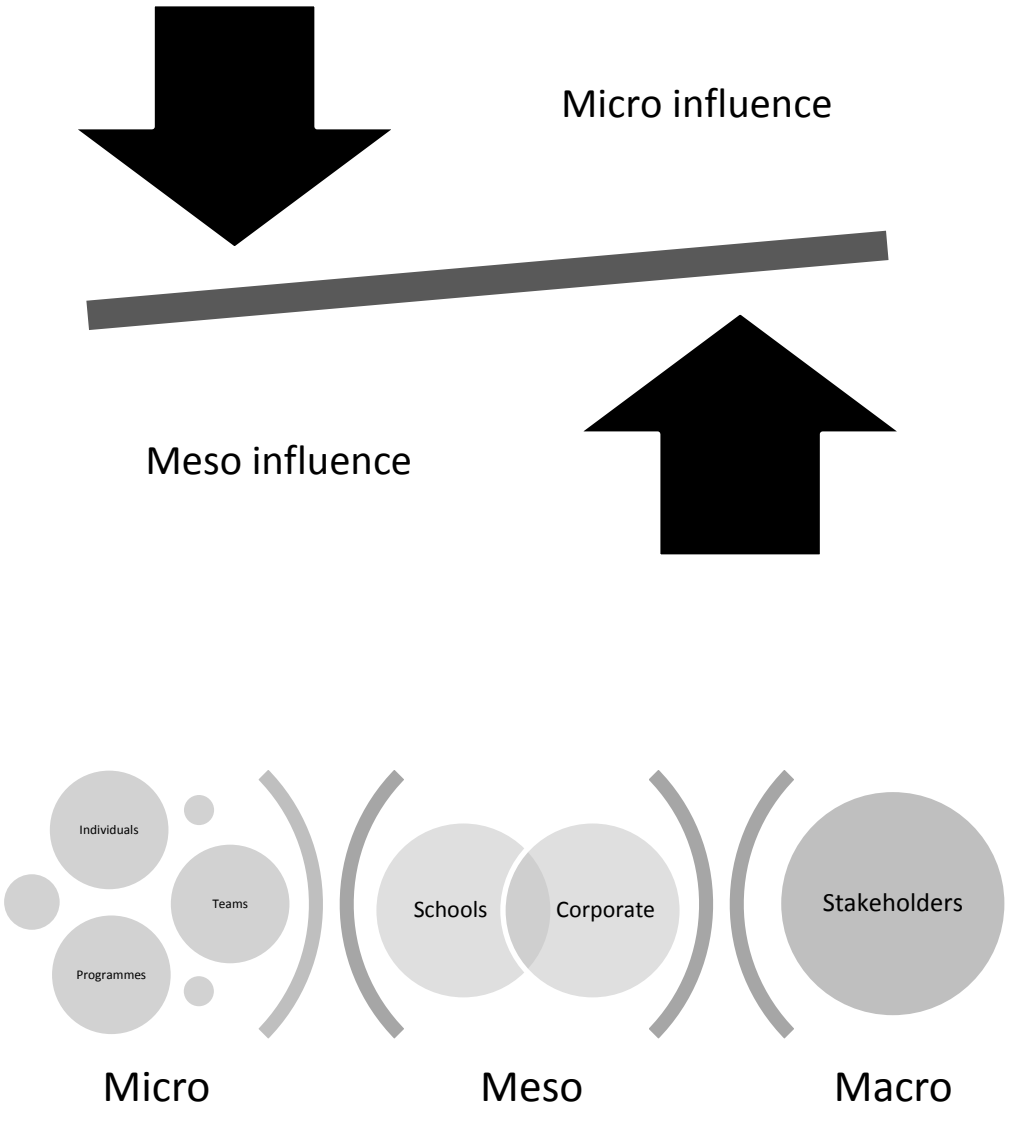

Figure 3. The storytelling context

This case study entails an exemplification of the activity based view of strategy as practice in an organization. It explicates how multiple actors have influence on the strategy of the organization, both its direction and performance. The chosen research method of storytelling reveals that people in their daily practices make sense of a strategy by both complying to and adding their own interpretations. Strategy therefore can be typified as a multi-authored ongoing activity of sensemaking. In this sense strategy is more than a mere execution of intended and planned outcomes, as if the organization is a machine with people as fuel to make the machine function. The approach of strategy as practice advocates the importance of people as strategizing actors. They are the practitioners who constitute the organization, creating a praxis through their contributions to the strategic direction and performance of the organization.

However, an organization entails more than a coincidental collective of individual identities. Strategy is not just an outcome by chance. The praxis of the organization is also governed by identity, hierarchy and rationality. Consequently, employees are expected to participate in and contribute to that. The present case study demonstrates that thematic profiling of an organization encompasses both a continuum of a planned corporate agenda setting (corporate storytelling) and an incremental making sense of this agenda in the organizational units (organizational storytelling). The organizational life might be typified as a collective polyphonic discourse that creates the organization's praxis. Such requires an organizational culture where people are given room and trust, where they are appreciated for raising their voices, where discourse is hailed as an organizational value in the benefit of the strategic performance of the organization.

The praxis of the strategy of corporate thematic profiling on living technology allows people in the units LED and SW to diversely interpret and flexibly deploy this. The multiplicity seems directly connected to the contexts of application of the professional fields served by the teaching and research programmes. At the same time, the umbrella of LT in its ambiguity enforces movement, direction for further development at both a decentral and a corporate level. For example by means of innovation in interdisciplinary crossovers between programmes (e.g. the LT-semester) where societal issues may be solved with technology oriented practices. The strategy praxis can thus be coined as a decentral variety within a corporate unity.

In further research, it would be interesting to gain deeper insight into the variables and mechanisms that guide individuals or teams in perceiving and experiencing their role as strategizing actors. How does organizational storytelling influences the strategic direction? Next

to the content of their contributions, it may be interesting to investigate how people themselves reflect upon their influence as potential strategic actors. My assumption is that they are not always aware of the soft power of influence they actually possess. And perhaps also the hierarchical powers, i.e. represented by the board members, are not conscious of the strategizing soft power of the decentral identities. Future research may convey that different management schools (with planning versus learning perspectives) should not be seen as opposites but rather coexist, thus proving that organizational strategy entails both continuously interaction of intended planned strategies, in terms of agenda setting and ignition of a process, as much as emerging unplanned sensemaking strategies. Such a perspective implies the elaboration of variables found in this case study, such as the degree of influence from the external environment (like governmental and industrial stakeholders), the development phase of the organization (like change as opportunity or as urgency), the type of the organization (the degree of comprehensiveness).

The pivotal question is, to allude to Mintzberg' metaphor of the Strategy Safari (Mintzberg, Ahlstrand and Lampel, 1998): what and who is riding the elephant? Several perspectives and variables are simultaneously influencing the direction and performance of the organization. An organization is therefore not a single elephant but a cooperating herd of elephants generating a converging force. A research design that focuses on the micro praxis – close to the practitioners – , such as embraced in this study would further enlighten these variables. The method of narrativity has proved to be enriching to reveal daily sensemaking by individuals and their contribution to corporate strategies.

8.4. Organizational recommendations

In this research I have taken the stance of an insider researcher with an interpretivist position: observing, describing, and analysing the understandings of organizational participants over time. I have constructed a reality and narration in order to understand what is happening in the messy reality of this organization.

As an engaged researcher, I would like to conclude with a few observations and organizational recommendations on the basis of interpretations that go beyond the constructivist stance, and which are based on empirical findings. These observations and

recommendations are not meant as an empirical neo-positivist attempt to find the best way of doing things, but rather as recommendations for the further development of the chosen strategy of Living Technology. I will discuss the most striking features that – from my point of view – show an overall activity based praxis with a (formal) lack of organizational reflectiveness ; the compliance with external stakeholders; the research into the (intended) outcomes of the corporate strategy; the procedural accountability and the narrative approach; the limitations of a one-sided neoliberal approach to education; and – connected to this – the further development of 'Living Technology' as a promising topic for discourse on the technologization of society.

The first observation concerns the formal documents, which show a low degree of formal organizational learning. They contain scarcely any references to or reflections on the conceptual frameworks (e.g. Triple Helix, entrepreneurial university, responsiveness, mode 2 concepts, quadrants of nexus teaching and learning) or comparisons made to best practices of other HE institutions. The organization appears to be strongly activity-based, with a responsive, compliant attitude to the macro-contextual environment. Therefore, external policies are taken for granted, including their explicit or implicit implications for the corporate policy.

The strategy and change path laid down in the analysed documents lacked both an elaborated, planned, and detailed phasing of the change, and a detailed description of the consequences of the technology focus in the long term. As such, the strategy is still under construction. Its development is 'evolutionary', without any marked timelines. On the one hand, this strengthens the inclusion and commitment of the staff; on the other, it possibly reduces the intended distinctiveness and exclusivity. It must still be decided whether it is wise to continue on this incremental and evolutionary change path after the strategic period of 12-16. The alternative of increased coercion in order to achieve certain results would lead to more impact on the acceptation by the schools. In addition, given the organization's substantial dependence on the macro environment, it remains to be seen for how long the organizational memory will last if the organization is confronted with, for example, policy changes of governmental stakeholders in particular (e.g. with regard to top sectors) and resources (e.g. for expertise centres).

The second observation is about the compliance with external stakeholders. Judging from the explicit compliance shown by the HE employers association, the governmental policy and its expectations and conditions are not called into question by the Saxion organization.

Nevertheless, critical comments are heard. Voices from critical management studies generally question the neoliberal market-oriented view on education, as they feel that this leads to a merely symbolic and rhetorical distinctiveness between institutions, as indeed many Dutch comprehensive universities and UASs that serve a particular region are only distinctive to a limited extent. Likewise, the strongly economic and technological orientation of the top sector policy is criticized, as well as the fact that this top sector policy comes at the expense of humanities-oriented programmes that cannot and should not focus on immediate gain. According to these critical voices, valorisation is usually defined by the top sectors in economic value (growth of turnover, profit, and human capital), and hardly in terms of qualitative societal value. Critical observations about the macro policies cannot be found in the formal documents of Saxion UAS. The governmental macro agenda is adopted unequivocally, including its rhetoric and assumptions (e.g. focus and mass enhances quality, more technological human capital increases the competitiveness of Dutch industries). This could perhaps also be interpreted as sincere and conscious tactical compliance. After all, the governmental expectations can also be interpreted as an opportunity to boost the identity and performance of the UASs, as a sector, within the dynamics of the dual system with Universities. After all, the call for more applied innovation of (professional) practices acknowledges the increasing importance of a University of Applied Sciences. And the mandate for applied research given to lectorates – with its characteristic of mode 2 production of knowledge within its 'context of application' – constitutes promising leverage for UASs.

The third suggestion concerns research into the desired results. The corporation strategy, which was deduced from macro policies, aims at a number of outcomes. One of these is a focus on technology that will make the Netherlands more competitive and increase economic activity in the related industries, particularly in the East Netherlands region (and subregion Twente). It is assumed that Saxion UAS will contribute to this strategy in the form of knowledge and human capital. The extent to which the focus on Living Technology actually contributes to these intended outcomes could be further investigated. Does the strategy of more focus and mass benefit the organization in the form of a better reputation, more visibility, better education, and better research? Will the students of Saxion UAS make the difference in their regions with their orientation towards technology? And does this strategy create more student mobility in the form of enrolment of students from outside of the region?

The formal documents of the 12-16 strategy seem to be mainly addressed to the faculties, and to a lesser extent directly to students. This is not in line with the requirement that the

outcomes of the strategy should be achieved in terms of qualifications, behaviour, and experience of the students. Therefore, it would be interesting to know whether students are aware of the impact of this strategy, and whether it succeeds in delivering better or differently qualified professionals, in the long run.

The fourth suggestion relates to further research into the narrative environment of accountability. The approach of strategy as practice and its focus on how people make sense of their daily practices is very enriching, as it offers insight into the discourse about the strategy. In the current paperwork accountability cycle of planning & control – which is dutifully performed – these voices are seldom heard. It would greatly enrich accountability if qualitative reports – in the form of storytelling (interviews, quotes, blogs, etc.) – were added to the current accountability cycle with its quantitatively measurable performance indicators.

This storytelling discourse should be made more visible, not only within the schools or units but also, and most importantly, between the units on corporate level. This would emphasize the value of the actors as strategizers for the learning organization. One aspect of accountability should be that it shows the discourse within the organization, e.g. in the form of enriching policy texts with practices, in order to underline that the development of a strategy is incremental, a work in progress, in which sensemaking depends on the quality of the contributions of the organization's members. This would also increase the level of explicit reflexivity on what is now mostly implicit tacit learning in the existing activity-based attitude. The current practice of learning by doing could be enriched with more explicit use of insights gained by doing organizational research.

A more narrative-based approach of accountability – applied in order to get a grip on the sensemaking – reveals more than exclusive paper-accountability in which an organizational unit appears to speak in unison. The narrative, qualitative approach probes deeper into the minds and hearts of the representatives of the organization. The people are central to the organization, as entities sharing common organizational goals. If accountability, organized in a planning & control format, is to be understood as a way of reporting how things work, micro stories should be an important aspect of those reports. Leaving this perspective human level out of accountability equation can lead to wishful thinking by reporters (managers), or the risk of lip service being paid to those directly above this level. The narratives of participants show how practices really work out.

The fifth suggestion addresses the neoliberal approach of the thematic focus (with its assumption that more focus and mass will enhance quality and competitiveness). This

approach places HE-institutions in the role of suppliers of human capital and problem solvers of societal and economic challenges. At one extreme, the school could almost be regarded as a job agency (human capital agency), in which the labour market determines what education should provide (the market demands, education delivers). In my view, the task of higher education is a dual one: of course, it needs to prepare students well for a position in a professional practice (which is, by the way, characterized by fluctuating demand, both qualitatively and quantitatively), but it should also prepare students for a position in society in the capacity of developed citizens able to contribute to the quality of society in its broadest sense. This 'Bildung' assignment can become compromised by taking a one-sided and dominantly economics-driven, stakeholder's approach.

The focus on Living Technology offers Saxion UAS the opportunity to connect both of these tasks of HE – which I would like to call 'usefulness' and 'value'. In this phase of implementation, respondents interpret LT as a euphemism, an oxymoron, or an antithesis. From this incremental development, the next step could be to change the current opportunistic adoption of the top sector into a consciously and independently made choice for an explicit connection between technology's usefulness and value, embracing the trend of technologization as promising, as a merit of human nature, and also study its impact on people and society. The strategy then becomes one of a synthesis of 'living' and 'technology' in a new complex whole: linking innovation and technology inextricably with its impact on prosperity and well-being in society. The valorisation is then both aimed at economic value and at a critical examination of how we want to relate to ever more invasive innovative technologies.

Connected to this, my sixth recommendation concerns LT as an interesting concept in the discourse about the technologization of society. Within this framework, I would like to refer to such scholars as Harari (2016), Lemaire (2010), De Mul (2014, 2015), and Verbeek (2014), who point out the importance of individuals and social actors speaking out about how we want to or should relate to new and invasive technologies.

One example of this is the existential theme of the wish to remain healthy for as long as possible, and postpone death, or maybe even deny death. Harari (2016:23) formulates that death is viewed as a crime against humanity: 'Modern science and modern culture have an entirely different take on life and death. They don't think of death as a metaphysical mystery and they don't regard death as the source of life's meaning. Rather, for modern people, death is a technical problem that we can and should solve'. This pointed characterization explains

the mounting industry that encourages citizens to stay ‘healthy’ for as long as possible, in the hope that this will lead to them reaching a higher age. All kinds of promising technologies suggest that they can slow down the ageing process, or make it less uncomfortable. This leads to an economic impulse for technology plus innovation, with a larger turnover for the supplying industries, and of course jobs. However, these economic pros simultaneously create humanistic issues for society. The quest for healthy ageing also evokes humanities-related questions: What is ‘being healthy’ exactly? How should we relate to the fact that life comes with limitations? That life is finite, after all? Who is (financially) responsible for ‘taking care of each other’? How far do we want to or have to go with the deployment of technology? Explicitly linking up an economy- and technology-oriented agenda on the one hand, and a humanities-related perspective on the other, could result in a valuable synthesis of the LT concept. This would stimulate interesting crossovers of several disciplines (e.g. economics, technology, philosophy, history) and professional practices (e.g. business, technology, welfare, health care), and lead to more cooperation between technical and non- or less technology-oriented education and research.

Harari (2016), De Mul (2014, 2015), and Lemaire (2010) draw an analogy to the tragedy of Prometheus. Whereas, according to Greek tragedy, Prometheus once stole technical knowledge and fire and gave them to humankind, post-modern humankind is also playing with fire. Several scenarios are possible: from people staying in control of technological knowledge (*homo deus*), to people becoming controlled by science and maybe eventually disappearing from the planet. Whichever scenario ultimately unfolds, more than ever before, humans will have to relate to the technologies they have unleashed. The concept of Living Technology could serve as a golden opportunity for Saxion UAS to put the paradox of technology and people at the centre of its education and research. It touches on crucial dilemmas for staff and students as important actors in society and in professional practices in particular.

This case study has shown that the strategy of Living Technology is a living story. The actors of the organization are characters in the story, playing their roles. It is a page-turning story in the form of a serial, continuously being performed and written, with new intrigues and plots, and without yet an ending in sight yet. And so be it, as it is strategy as practice.

Appendices

Appendix 1: Abbreviations

AMM	Academie Mens en Maatschappij
EB	Executive Board
EB1	Executive Board, chairman
EB2	Executive Board, vice chairman
ELI	Ministerie Economische Zaken, Landbouw en Innovatie
HE	Higher Education
HEI	Higher Education Institutions
HTSM	High Tech & Smart Materials
LED	School for Life Sciences, Engineering & Design
LEDd	School for Life Sciences, Engineering & Design, dean
LEDl	School for Life Sciences, Engineering & Design, lecturer
LEDt	School for Life Sciences, Engineering & Design, team leader
LT	Living Technology
LTPS	Living Technology Project Semester
OC&W	Ministerie Onderwijs, Cultuur & Wetenschappen
SAS	Strategic Agenda Saxion
SP	Saxion Annual Plan Report
SR	Saxion Annual Review Report
SW	School for Social Work
SWd	School for Social Work, dean
SWl	School for Social Work, lecturer
SWt	School for Social Work, team leader
UAS	University of Applied Sciences
UASs	Universities of Applied Sciences

Appendix 2: Facts & figures Saxion UAS

Development of key figures and performance indicators

Key figure	2015 Realization	2016 Realization	2017 budget	2018 budget	2019 budget
Number of students (including Saxion Next)	26,255	26,224	25,909	26,107	26,336
Staff (in FTE including Saxion Next)	2,227	2,149	2,098	2,058	2,059
Total profits (€ million)	222	225	224	227	227
Result (€ million)	-6	-5	-4	0	1
Staff costs (€ million)	180	181	180	181	182
Balance sheet total (€ million)	207	219	211	208	206
Equity (€ million)	71	66	61	61	62
Staff costs in % of revenue	81	80	80	80	80
Result in % of revenue	-3	-2	-2	-	-
Solvency II (%)	37	34	32	32	33
Liquidity	0.5	0.7	0.6	0.6	0.7

Table 1, Development of Key figures 2015 – budget 2019

Performance-indicators	2012 realization	2013 realization	2014 realization	2015 realization	2016 realization	2016 Target value[1]
1. Study success: Drop-out	26%	26%	27%	26%	25%	25.5%
2. Study success: Bachelor return	61%	59%	59%	58%	59%	59%
3. Quality/excellence: Students' judgement	68%	68%	71%	75%	78%	68%
4. Teacher quality: Teachers with master's degree/PhD	61%	69%	76%	79%	81%	75%

Table 2, Development of performance indicators

Other indicators	2012 realization	2013 realization	2014 realization	2015 realization	2016 realization	2016 Target value
Student contentment	7.0	7.0	7.0	7.2	7.2	7.0
Staff contentment	-	7.8	-	7.9	-	-
Contentment of professional field	-	7.2	-	7.2	-	-
Absenteeism	3.7	3.7	3.6	3.6	4.2	3.8
Accommodation m² programmes for external professionals/students	3.9	4.1	4.4	4.4	4.4	4.4

Table 3, Realization other indicators

[1] Saxion established new internal target values in 2016 for the performance indicators 'study success' drop-out (regarding cohort 2015), and bachelor return (regarding cohort 2011). The target values regarding students' judgement and teachers with a master's degree/PhD are in conformity with the performance agreements and not adjusted in 2016.

Number of students: Figures[2] and trends

Total number of students	Academic year 2015/2016			Academic year 2016/2017			Growth
	FT/DU	PT	Total	FT/DU	PT	Total	
Total Saxion funded programmes	22,741	2,449	25,190	22,825	2,366	25,191	*0%*
Location Apeldoorn	768	56	824	867	71	938	*14%*
Location Deventer	6.897	823	7.720	6.917	819	7.736	*0%*
Location Enschede (including Master ANP, HCSW, and L&I)	15,076	1,570	16,461	15,041	1,476	16,517	*0%*
Total Saxion non-funded programmes	353	712	1065	323	710	1033	*-3%*
Saxion Next	310	510	820	298	512	810	*-1%*
Masters	43	202	245	25	198	223	*-9%*
Total number of students	*23,094*	*3,161*	*26,255*	*23,148*	*3,076*	*26,224*	*0%*

Table 36, Total number of students

[2] Source: DUO* funded programmes, 1 figure for HE; non-funded programmes: table Admissions of the Association of Universities of Applied Sciences.

Research groups

Research groups *(date of issue December 2016)*
School of Governance, Law & Urban Development
Risk control
Sustainable Living Environment
Governance
Development of Work Locations
Urban Development and Law
School of Creative Technology
Smart Functional Materials
Media Technology Design
Ambient Intelligence
School of Health
Health & Motion
Nursing
School of Applied Psychology & Human Resource Management
Expertise-Innovative Entrepreneurship/Family Businesses and Business Succession
Smart Industry
Strategic Human Resource Management
School of Social Work
Technology in Care and Wellbeing
Social Work
School of Business, Building & Technology
Soil and Subsoil
Regional Development
Innovative Technology in Construction
Expertise Centre of Hospitality
Ethics and Social Enterprising
Ethics and Technology
Experience & Service Design
Business Development
Expertise Centre of Innovation in Education
Science & Technology in Education
Innovative and Effective Education
Dalton Education and Education Renewal
Education Arrangements in a Social Context
Functional Literacy
Rich Media and Teacher Learning
Behaviour and Learning Problems
School of Life Science, Engineering & Design
Mechatronics, Service Robotics & Medical Devices
Lightweight Construction in SMEs
International Water Technology
Industrial Design
Advanced Forensic Technology
Sustainable Energy
Nanotechnology: NanoPhysicsInterface
Nanotechnology: NanoBioInterface
School of Marketing & International Management
International Trade for SMEs

Table 40, Overview of research groups

Organogram

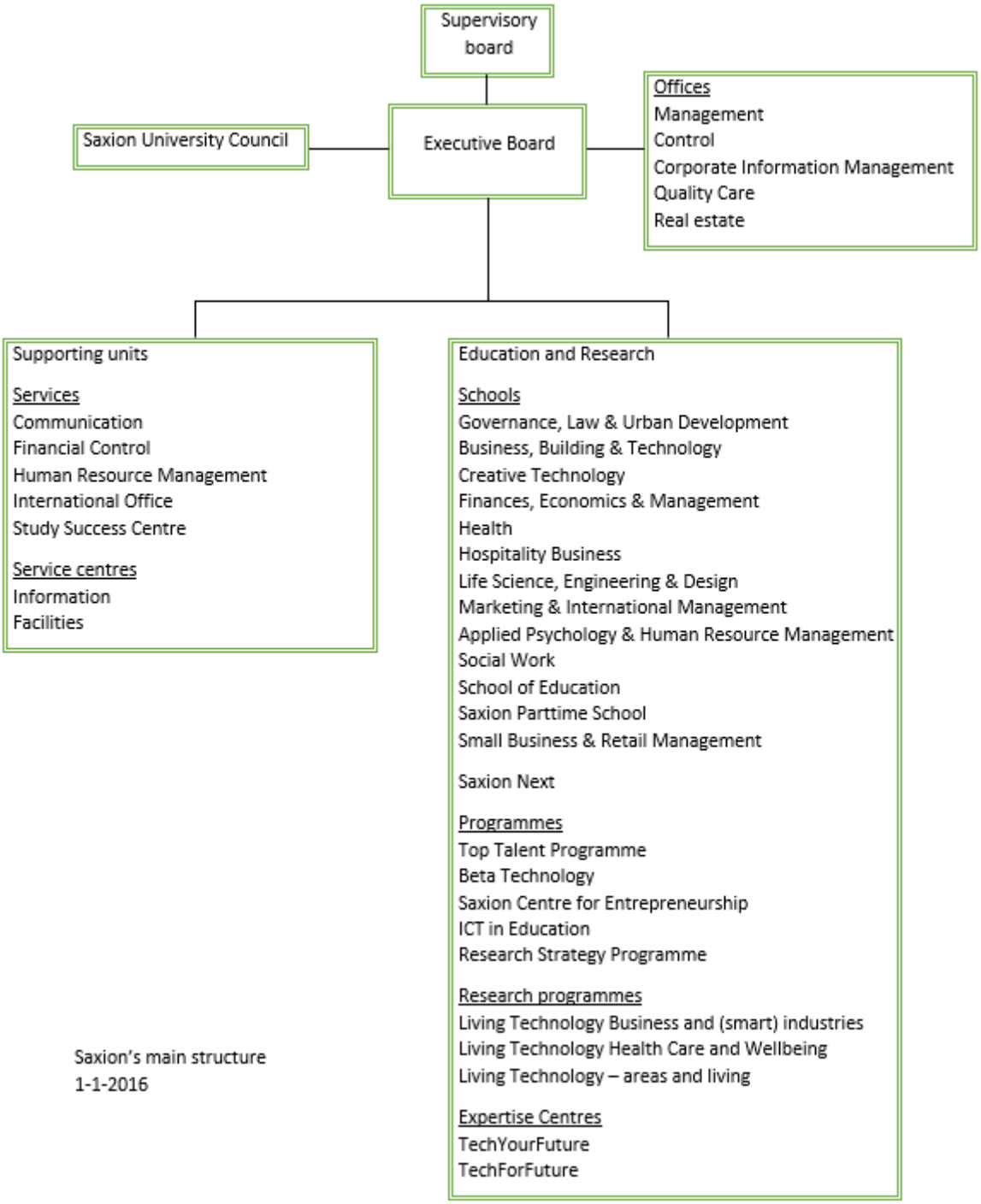

Figure 4, Organogram Saxion 2016

Appendix 3: The coding process

The collected data from corporate policy texts and the interviews (see Appendix 5: Data collection overview) was coded in several cycles. From the corporate policy texts four themes were derived (Chapter 6.3), which served as reference framework for the interview design (Chapter 7.1). An inductive and interpretative process of the interview transcripts resulted in the first descriptive cycle which produced about 100 initial codes, close to the quotes from the interviews. In a next conceptual cycle, they were grouped into 15 code groups, with 62 underlying initial codes, and subsequently into the four general themes. Saturation of the data was accomplished through interpretative cycles of finding and creating meaning out of the data.

The table below gives an overview of the codes at the level of themes, code groups and the initial codes, followed by an example of the conceptual coding cycle of an excerpt transcript interview. A code refers sequentially to the theme, the code group, and the initial code.

Code	Description
1.	Theme 1: Why choose a thematic focus?
1.1	*Code group 1: Why choose a thematic focus?*
1.1.1	Follows the national policy of Veerman
1.1.2	Follows the top sector policy
1.1.3	Links the focus to characteristics of the region
1.1.4	Leads to efficiency of means
1.1.5	Provides more direction on strategic choices
1.1.6	Stimulates excellence, more focus on expertise
1.1.7	Increases the chance to receive incentives
1.1.8	Enhances the stature of the UAS amongst stakeholders (students, human capital, region)
1.1.9	Positions the UAS in the HEI (in relation to other UASs and universities)
1.1.10	Is in line with performance agreements
1.2	*Code group 2: Why technology?*
1.2.11	Technology helps solve social issues
1.2.12	Links up to the High Tech & Smart Materials top sector
1.2.13	Fits in with the economic profile of the region of Twente
1.2.14	Ties in with the profile of UTwente
1.2.15	Ties in with the increasing importance of technology in professions

2.	Theme 2: What do you understand by ‘Living Technology’?
2.3	*Code group 3: Euphemism*
2.3.16	Avoids HTSM
2.3.17	Avoids negative connotations of technology
2.3.18	Expands inclusion of meanings
2.3.19	Oxymoron
2.4	*Code group 4: Acceptation*
2.4.20	Increases acceptation of technology in a comprehensive UAS
2.5	*Code group 5: Meanings ‘living’*
2.5.21	LT for people
2.5.22	LT connects people
2.5.23	LT makes life easier
2.5.24	People need to learn how to relate to LT
2.5.25	LT is dynamic
2.5.26	LT is continuous innovation
2.6	*Code group 6: Inclusive*
2.6.27	LT excludes little
2.6.28	LT evokes (ethical) dilemmas
2.7	*Code group 7: Examples*
2.7.29	Perspective of (end)user
2.7.30	ICT
2.7.31	Domotics
2.7.32	Innovative
3.	Theme 3: What is the impact of the focus on Living Technology?
3.8	*Code group 8: Use of name LT*
3.8.33	Students
3.8.34	Co-workers
3.8.35	External practice
3.9	*Code group 9: Impact on curriculum*
3.9.36	LED: LT-semester
3.9.37	SW: gradually
3.9.38	Lectorates as originators
3.9.39	Interdisciplinary collaboration: for issues
3.9.40	Interdisciplinary collaboration: for students
3.9.41	Interdisciplinary collaboration: threat
3.10	*Code group 10: Facilities*
3.10.42	Space
3.10.43	Facilities
3.10.44	Expertise of lecturers
3.10.45	Availability of lecturers
3.10.46	Pressure on organization
3.10.47	Time for change
3.11	*Code group 11: Acceptation*
3.11.48	LED: evident
3.11.49	SW: gradually
3.11.50	Room for acceptation
4.	Theme 4: What will the focus on Living Technology lead to?

4.12	*Code group 12: Incremental*
4.12.51	Gradual brand development
4.12.52	More direction for performance
4.12.53	Differences in development
4.12.	*Code group 13: Collaboration*
4.13.55	More internal collaboration
4.13.56	More external collaboration
4.13.57	Role of lectorates
4.13.58	Collaboration is not an objective
4.14	*Code group 14: Interaction with more technology*
4.14.59	Learning to deal with technology
4.15	*Code group 15: Risks of harm*
4.15.60	Administrative continuity
4.15.61	Speed
4.15.62	Overheating of organization

After a first descriptive cycle, conceptual initial codes (grouped in code groups) were attached to the transcripts of the interviews.The result of this cycle is illustrated by an excerpt of an transcript. The results of the conceptual coding of all transcripts subsequently became input for an analytical synthesis (see Chapter 7.2) which led to conclusions (Chapter 7.3).

Code	Excerpt Transcript LEDl2 Duration interview: 38:47 Word count interview: 4113
	(…) *INT. The theme that we'll be discussing is 'Living Technology'. Can you describe for me: Do you have any involvement with LT from your function, responsibilities?* LEDl2. So I have my own group, you know, but then you are also cooperating in LT. And from my understanding, LS (Life Science) has always been involved. And X (anonymized name colleague), who coordinates, also comes from the LS-programmes, and through that we have always had somewhat of a connection with the theme, with the component. *INT. What do you mean by 'component'?*
3.9.36	LEDl2. It now really is a block, in the last two years, that they work with us for half a year with an LT-project. And it has become more and more a stand-alone component, you know, in LS. When I see the evolution from how it started up during the first years
3.8.35	to what it is now, then it has really grown, become bigger, and businesses have
4.12.51	become increasingly interested in cooperating. *INT. Can you tell us more about that? You say it started with a number of activities and has evolved into how it is now. How has it developed, then?* LEDl2. In the beginning you already had the research groups at LS... That students worked for five months in classes with an internship on research projects. This was often coordinated by teachers from their own component. And then they wanted to
3.9.39	broaden it a bit by involving other disciplines. I think that nanotechnology has also had an influence on this, because nanotechnology is a component that is already very multidisciplinary. So several disciplines came together, and then it started slowly with

3.9.38	lectorates that had projects... that students could do assignments at the lectorates, at companies... And in the beginning, the first students, they still sometimes had (...) then not everything was there yet, they could not yet get to work in practice. It was theoretical, the foundation was laid... and now you see that students are working on
3.9.40	more concrete assignments. And in terms of multidisciplinary (...) that several
4.13.55	students (...) that collaboration, that mechanical engineers and biomedical (...) previously it was only within its own component...
	INT. So a number of years ago there were mainly projects within one's own study programme, and now there are projects where students from multiple programmes work on one project...
	LEDl2. Yes.
	INT. .. and that project is coming more and more from outside, with or without the involvement of a lectorate... and what is then the phase that you are in now?
3.10.42	LEDl2. I now think, very concretely, that the facilitation (…) It's becoming enormous, more space is needed to keep all those students busy. And now there are European
3.9.40	Projects, so from Europe they are linking up, our students can go to affiliated universities. And vice versa. And it is becoming very big, and getting bigger, and this
4.13.56	brings new challenges. And with other schools, with ACT (School of Creative Technology), they are going to join in too, over the next semesters, and Business
3.9.39	Administration too. And then one is confronted with more collaboration between people, and that's going to change the dynamics of it all too.
	INT. Then how big is it now? Just to get an idea…
	LEDl2. Well, I cannot say exactly how big it is, but if I look at last week... There was a symposium here at Saxion, and that was the small symposium, and in January you
4.13.56	have the big symposium, well... There were really very many groups. Pitches could be
3.8.35	made, to make contact with clients for future students, around the table. Well, we were sitting at table 53, and it did not stop there.
	INT. So there are dozens of groups, or maybe even hundreds?
	LEDl2. I think now still dozens, but it's going in the direction…. it's going to happen, a hundred.
	INT. So it's a sort of semester where students from various programmes are working on a project, as you just indicated. Up until now it has been within Life Sciences, and more and more links are being made with other programmes in LED, with Creative Technology, with Business Administration.
3.9.40	LEDl2. Yes, and within LED with Life Science, Engineering, Electro, Industrial Product Development ... you name it.
	INT. Now, you just called it the LT-semester. What does that stand for?
3.9.36	LEDl2. Living Technology Semester, yes.
	INT. So it's called 'the Living Technology Semester'…
	LEDl2. Yes.
	INT. What is 'living technology' then?
2.7.17	LEDl2. Well... I think that name has been very diplomatically chosen. Of course, 'life science', the 'living', the living environment, the technology... So many things can be
2.7.32	grouped under that, it has a very broad coverage, for instance electronics to make wheelie bags run smoothly... but drone projects have been done as well. Or fragrances... whether they could detect them, that involves chemistry and technology,
2.3.18	and that is again linked to the living environment. So, LT is enormously, enormously wide
	INT. You also used the word 'diplomatic'. What do you mean by that?
2.3.18	LEDl2. Yes, you must have a name that is accessible to everyone, without scaring
2.3.17	them off. And I can say that, coming from chemistry myself. And if you say that, then people are all quickly, oh, I want nothing to do with that ….

	INT. What scares them off?
	LEDl2. Purely the image that people sometimes have of chemistry. Often, it concerns environmental pollution, bad things. And if you have to choose a project, and if you want to set up a project such as LT, then you have to have a name that everyone will
2.3.17	speak to, without having prejudices about it, negative prejudices.
	INT. So words like 'chemistry', 'engineering'.... That all sounds a bit too technical...
	LEDl2. Yes, but that's just my opinion… I really think they are there... to broaden it, also my opinion, but I think that from the start they have had the ambition, an image
2.3.18	of the future, to keep it as broad as possible. So that it appealed to as many parties as
2.4.20	possible.
	INT. So it has to do with calling up a certain association… not calling up a negative association, not calling up an unwanted association, it is tactical, diplomatic… and it's also the idea to make it as broad as possible….. But it's called 'living technology'. The word technology is in it, and living. What do those two words mean to you?
1.2.11	LEDl2. Yes, 'living' is in my view very broad: society itself. How do we live, what do we need to live… and that is, let's say, from water purification to ergonomic chairs. Or for
2.5.23	AGZ healthcare, how can you arrange life as well as possible, as comfortably as
2.5.22	possible for people. And 'technology', yeah, you cannot get around it now, like the ipad etc., everything is technology. They warn about the robotization of society too, but that's everyone's development. Without technology… there are a few individuals that still keep this up in the world, but a very many…
	INT. So, you're saying, technology is fact of life?
	LEDl2. Yes.
	INT. We will become more and more... and even further influenced, aided by technology…
2.5.26	LEDl2. Yes, I think so.
	INT. And what is the relationship with 'living' then?
2.5.23	LEDl2. That this technology, you know, has to serve our life, we want that. Like an ipad, we're going to use it because it makes our lives easier, we think.
	INT. So then what 'living' has to do with is that technology should be making life easier, serving life… in everyday applications, and those can be very broad…
	LEDl2. Yes.
	INT. You just said that you assume that this development will only continue. And that there may be a few people who question this, but that you probably can't turn around...
	LEDl2. Yes
	INT. Because LT is broad, are there, in your opinion, good examples of LT where you say: look, that is what we understand by LT or what we would like to understand by it?
1.2.11	LEDl2. Well, I need a moment to think about that… yeah, well, I think… They've done a study to get medicine residue out of water, the sewage. That's a big problem, we pee the metabolytes out, and that comes into the sewage, and through the recycling, we
2.7.32	drink it again. And to get all those substances out again is a huge challenge. And I think that's a good example that students are working on, to look at what we can now sensibly work on to see how we can get the medicine residues out of our wastewater. And that is perhaps a somewhat narrower (…) a widely used example is perhaps also (…) in mechatronics there is a collaboration with a hospital, Roessingh I believe, about a wheelchair that you can move in such a way that someone can get out of it more
2.7.29	easily, also for nurses, to be able to help someone better without straining your own body with all the bending etc., that it is possible for all parties. Yes, there are so many examples, uh, uh …
	INT. Can you give an example, that you say, well… People think of this as LT, but where you question it? So can you also exclude a project, that's actually not as it should be?

3.9.39	LEDl2. Yes… yeah, well. I see opportunities everywhere… I'm working on a project myself, and it is really chemical, so it's not multidisciplinary at this moment. Yes, then you can say: is that LT? But on the other hand the project is now in the first half year, it still has to grow, that is to say, you also have to let it grow. And if it's still not anything after a year… not yet able to fit interdisciplinary… Yes, then you have to make choices, to fit the project in differently. *INT. What you are now saying, it has to actually fulfil the criterium of being multidisciplinary?* LEDl2. Yes *INT. And if it includes one discipline, such as chemistry, then that is not entirely according to the ideal concept of LT?*
3.9.40	LEDl2. No, because it is precisely the challenge posed by LT to draw people out of their comfort zones. One can tell... every discipline has its own language, its own customs… and it's very enriching for students, who may not always like it, but in the end, it's very enriching to dare ask, 'What do you mean exactly?', when working with other people who have their own lingo. Instead of remaining in one's own cocoon. *INT. So that is a major purpose of the LT-semester, that you work together with other disciplines, get to understand each other, complement each other...* LEDl2.Yes. *INT. So those other disciplines are thus in LED, with ACT. So those are in general technical disciplines?* LEDl2. Yes. *INT. Is there also any thought given to very different disciplines, for instance care, or pedagogy, or social sciences, or hospitality...?*
2.7.32 2.9.39 2.9.40 2.6.28	LEDl2. Well, I see possibilities... I am guiding a few second-year students plus a trainee now, who are working on a project about anti-bacterial properties of textile, coatings on textile, for instance, for nurses. And it happens that technicians think of something that is uncomfortable to wear, in the end, or feels uncomfortable, and then it isn't going to work. And if people from other disciplines are involved at an early stage, people who are actually going to use that product. And then not only ask for their opinion, but actually involve them, then I think the process can be adjusted in good time. This is a common problem with technicians. They are completely engrossed in their own field of work, when they see all the possibilities they become very enthusiastic, and may forget about ethical aspects or different opinions others may have, different ethics, or whatever. And that can clash, and the sooner one notices it, the better. *INT. That could be a next step? To get more disciplines involved?* LEDl2. Yes. *INT. So it's now first and foremost just making the connections better in the technical environment, and later involving other disciplines as well...* LEDl2. Yes. *INT. LT is now a spearhead at Saxion. Do you have an impression of how this came about, the choice for this spearhead?*
1.1.2	LEDl2. Yes, I know that the technology, the nanotechnology, had to become the spearhead a bit. More details, uh uh... I don't know… *INT. Do you have an idea about why Saxion chooses a spearhead?*
1.1.1 1.1.9 1.1.3 1.2.13	LEDl2. They just have – all the universities of applied science in the Netherlands – they have so to speak their own colour. To be a bit unique as a UAS… I do know from chemistry that in the Leiden region medical is chosen because the industry is there too. Here we have nanotechnology, so it's logical to opt for nanotechnology here. In the Zwolle region they choose polymers because that is the field of work in the

	region... From that thought I actually assumed that that would also be the case here. But that's purely my interpretation….
1.1.3	*INT. You have the impression that this choice mostly has to do with what type of industry is here in this region.*
	LEDl2. Yes
1.1.3	*INT. And we complement that as much as possible…*
	LEDl2. Yes, because if you look at UASs they generally come from the region, usually with the exception of a single study programme, and yet a considerable number of students remain in the region.
	INT. So we actually are training people for this region… Could we have also chosen a different spearhead? Or is it so obvious that it had to be technology? Because Saxion is a very broad UAS…
1.1.2	LEDl2. Yes, maybe so, but I come from technology so I'm biased. And I think, if one just looks at a country, then it is not earned by means of services. In the end, the economy is about products, and if one cannot export products, then – as I see it – one
1.2.15	cannot afford the services. So, from that viewpoint, I think it is very wise to choose something concrete, even if it is knowledge about products, an engineering consultancy, consultancy in general, as long as one takes a concrete product as the spearhead, instead of services. But that is pure opinion…
	(…)

Appendix 4: Invitation to participate in an interview

Dear colleague,

I am currently doing research for a thesis within the framework of a Doctorate in Business Administration (DBA) from the University of Bath (UK). The research focuses on 'the sensemaking of the thematic profiling strategy of a University of Applied Sciences in the Netherlands'. A case study of Saxion and its 'living technology' strategy is at the centre of the research. An important element in this case study is a survey to find out what 'meaning' Saxion's participants attach to the strategy of 'living technology'. The participants whom I would like to select for this survey are: members of the Executive Board, members of the Management Teams of the School of Life Science, Engineering & Design and the School of Social Work, as well as the team leaders and lecturers of these two schools.

I would therefore like to invite you for an interview on this topic. Details of the interview:

- the interview will take place in your own workspace, or, if so desired, in my workspace in Deventer (B457) or Enschede (E207a);
- the interview will be recorded on a voice recorder and iPad, to enable transcription of the data to be analysed;
- all data obtained from the interviews are strictly confidential and will only be used for the research;
- the interview will take 60 minutes maximu;
- you determine what information you want to give;
- you also determine the date and time of the interview;
- you get access to both the results of your interview and the results of the entire research;
- you do not need to prepare for the interview.

Your cooperation in this survey is highly appreciated. I will respect your decision if you do not wish to be involved in this survey. You will soon be invited for the interview via an invitation from my management support. If you have any questions about the invitation, I will gladly answer them.

Rients Jorna

Researcher for the DBA University of Bath

Appendix 5: Data collection overview

Corporate policy texts

Corporate policy texts	LED policy texts	SW policy texts
SAS 12-16	LED12R; 31 pages	SW12R; 19 pages
SA-Living Technology Research Agenda		
Performance agreement		
SP 13		
SR 13	LED13R; 31 pages	SW13R; 26 pages
SP 14	LED14P; 68 pages	SW14P; 27 pages
SR 14	LED14R; 48 pages	SW14R; 48 pages
SP 15	LED15P; 68 pages	SW15P; 45 pages
SR 15	LED15R; 77 pages	SW15R; 52 pages
SP 16	LED16P; 99 pages	SW16P; 58 pages
SR 16	LED16R; 57 pages	SW16R; 47 pages
11 documents	8 documents	8 documents

Interviews

Participant segment	Code respondent	Duration Interview (m:s)	Date interview	Word count transcript
EB	EB1	43:38	15.06.2016	5678
EB	EB2	44:25	01.06.2016	3498
LED	LEDd	39:86	04.07.2016	5182
LED	LEDt1	34:05	10.06.2016	5740
LED	LEDt2	36:64	07.06.2016	4094
LED	LEDl1	26:43	17.06.2016	2247
LED	LEDl2	38:47	22.06.2016	4251
LED	LEDl3	42:50	24.11.2016	5591
SW	SWd	41:39	29.06.2016	4413
SW	SWt1	37:37	27.06.2016	5195
SW	SWt2	43:07	11.06.2016	3726
SW	SWt3	34:24	10.06.2016	4554
SW	SWl1	39:54	15.06.2016	4913
SW	SWl2	31:48	22.12.2016	3074
SW	SWl3	39:48	24.10.2016	4752
Total	15	572:15		66,908

Legend:

- S: corporate text Saxion
- LED: text School Life Sciences, Engineering & Design
- SW: text School Social Work
- EB: Executive Board
- R: annual review report
- P: annual planning business report
- SW12R: School Social Work, annual review report, year 2012
- d: dean
- l: lecturer
- t: team leader

Tables and figures

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